

The Comanche Chief

Comanche County's Oldest Business Institution—Published For and About Comanche County

FIFTY-THIRD YEAR—NO. 3

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Farmers, Ranchers Direct Comanche County Co-Op

Rural Electrification Marks Twenty Years of Progress

Mark reports of agricultural failure in Russia throw into bright contrast a big success story of American farmers—American free enterprise—rural electrification story.

Brazos Power Being Used in Comanche

The Comanche County Electric Cooperative is a member of the Brazos Electric Cooperative, which serves local Co-op with wholesale electric power from two large generating plants. The local Co-op also serves large amounts of power metering points on T.P.&L., S.C.O. and W.T.U. lines but wholesale bills come from B.P.C. and they then settle with the other companies on an exchange of power basis. The Brazos Cooperative has a network of transmission lines through the central part of Texas and a steam generating plant at Belton. This plant is known as the "Poage" steam plant in honor of Congressman W. R. Poage of Waco, who has given his hearty support to the formation and development of the Brazos Cooperative. There are 18 electric cooperatives making up the Brazos organization and each of them are supplied with wholesale power in the same manner as the Comanche Co-op. The Brazos Co-op has contracts for the power output of the Possum Kingdom and Whitney Dams and thus has a good position in respect to obtaining interchange agreements with the private power companies.

Saves Money

A completely factual study has been made and it has been proven that the existence of the Generation and Transmission Loan Act and the existence of the Rural Electrification Act has saved the Rural Electric Cooperatives throughout

the United States which with the aid of loans from the Rural Electrification Administration built rural electric systems to provide themselves with badly needed power.

REA was 20 years old on May 11. It was on that date in 1935 that it was created by executive order. It became an established agency of the government by act of Congress on May 20, 1936.

The story is not just that these power systems are serving more than four million consumers over some 1,300,000 miles of line. Nor does the significance of the development arise alone from the fact that electricity has removed much of the drudgery from farm work—drudgery that not many years ago was considered an almost inevitable part of rural living. True, less than 11 per cent of the nation's farmers

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Story of Electricity

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the state some \$8,000,000 since the beginning of the Co-ops in lowered wholesale power rates from all of the utility companies operating in Texas. This means an actual saving to each member-consumer of the co-ops, because all expenses have to be paid out of the electric bills of the members.

The Brazos Cooperative also follows the principle of local ownership and control because its board of directors is made up of one member from each co-operative, appointed by the local board of directors. All affairs of the B.E.P.C. are administered by this board, which hires a manager in the same manner as the manager of the local Co-op.



READY FOR THE MONTHLY BILLS—Manager W. J. Parks says, "Of course we realize that it is never a great joy to pay the monthly bills, but this cashier counter and lobby in the Comanche County Electric Cooperative's new headquarters building, was designed to give a friendly and pleasant atmosphere so as to make the bill-paying as painless as possible." Mrs. Bonnie Otwell also does her best in this respect, being always friendly and courteous. She was reared right here in Comanche County and is well known to a large number of the members of the Cooperative. Like all other areas, this space is designed for the most efficient utilization of space possible and the material for all the cashier's assigned duties is located around her desk in easy reach.

Safety Gets Top Attention At Comanche

Only one or two other Electric Cooperatives in the State have worked more man-hours without a "lost-time" accident than the Comanche Co-op. The record stands now at 280,000 man-hours worked with no "lost-time" accidents. (A "lost-time" accident is defined as one which causes a man to be off work for one day or more). This number of man-hours represents a period of about four years and is an achievement to be proud of both from the standpoint of management and employees.

Accidents are very expensive to the employers and costly and painful—sometimes tragic—to the employee; so at the Co-op, constant thought is given to remember to work safely. Regular meetings are held with all outside employees where training is given in how to perform their assigned duties safely, correctly, and efficiently. The success of this effort is borne out by the excellent safety record and this record speaks well for the ability, interest and careful attention which all the linemen and their helpers give to their daily jobs.

This safety record also includes over one million miles driven without accident by all the trucks, pickups, etc. owned by the Co-operative.

New Building For Headquarters

The new building which was finished late last year has received very favorable comment from all parts of the territory. This building is one of the most modern and efficient in the area and is more than fulfilling expectations for improving the operations of the Cooperative. The electric heating proved to be wonderful last winter and should serve as an example for homes in the future to be heated electrically. In fact, anyone building a new home from now on should check up on this type of heating before completing plans. More information can be obtained at the office at any time.



W. J. PARKS, MANAGER of Comanche County Electric Cooperative, Inc. at Comanche, Texas. Under the Management of Mr. Parks, the policies of the Board of Directors have been effectively carried out to make this rural electric system one of Texas' best.

7 Directors Are Active In Program

The 7-man Board of Directors of the Comanche County Electric Cooperative are all either farmers or ranchers, representing the members in their area with a thorough knowledge of the viewpoints and feelings of their friends and neighbors to carry into the policy making role which they fill on the Board.

M. A. Richmond, President, is a rancher and has lived in his present location all his life; is widely known all over Brown County as a leader in practically every aspect of civic and local affairs. He is a member of the County School Board, leader in the Blanket Baptist Church, and has served in many other civic jobs in past years.

W. B. Starr, Vice-President, has resided on his farm in Eastland County for many years, has been active in most of the Co-operative movements in the area for all those years. He is still active in the affairs of the PCA and Farm Bureau and has a very large acquaintance all over Eastland County.

B. Ray McCorkle, Secretary-Treasurer, has been on his farm in Comanche County for many years, has taught school a number of years in Beattie, Sidney and other schools; was County School Superintendent for several years and is also well known all over Comanche County.

Joe Weedon, Sr., is a rancher in Brown County, raises fine registered Polled Herefords, is active in the Brown County Livestock Association, is President of the Board of NHFLA in Brown County and has also been active in many other civic affairs and lived at his present ranch for many years.

Paul Roberts is a farmer in Stephens County, has resided there for many years and like all the others is well known all over his area for his activities in local affairs.

J. M. Foreman, is a dairyman in Comanche County, has resided here most of his life, is active in church, civic and local affairs, is on the Board of the Comanche County Dairy Association and he too, is known widely in his area.

Troy Pettit has a ranch in Comanche County and has been connected for many years with the ASC (formerly PMA) in Comanche County and in a number of different capacities. There are mighty few people in the County who do not know him for his long years work with the farmers and ranchers of the area. He is an active church worker and has served in many other civic affairs.

Texas Rural Electrics Active

The electric revolution which has taken place in Rural Texas during the past 18 years resulted from a basic need and demand by rural people for this service. In comparable fashion, the basic needs and demands for service by the rural electric systems have guided the growth of their own state organization, the Texas Electric Cooperatives, Inc.

Almost anonymously, TEC has served the members of the rural electric systems since it was organized as Texas Power Reserve Electric Cooperative in 1941. The organization has not sought to be unknown, but being

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BOOKKEEPING DEPARTMENT—Another very important work center is the Comanche County Electric Cooperative Association's bookkeeping office and shown here at work is Mrs. Percy Parsons, bookkeeper. Mr. Parsons is coordinator of the Veterans Training School in Comanche. Mrs. Parsons has been with the Cooperative for several years and has performed nearly all of the various jobs in the office including cashier, billing clerk, and bookkeeper.

REA Program Started 20 Years Ago in United States

Rural Areas Make Use Of Electricity

(Continued from Page 1)

had electric service in 1935, and now more than 92 percent of American farms are receiving electric service.

Farm Output Up In U. S.

Electric equipment such as milking machines, automatic livestock watering equipment, pig and chick brooders, hay dryers, feed mixers and hoists, have helped farmers increase production with fewer workers to do the job. Today the average farm output per hour of farm labor is almost twice what it was back in pre-World War II days. But electricity's share in the increased efficiency of American farming is only part of the rural electrification success story.

Important to the story is that the REA-financed power systems which are successfully performing this giant task for rural America were built with grassroots initiative. They are locally owned and locally managed. The great majority of them are privately-owned business enterprises, including 983 cooperatives. A smaller number—73—are operated by municipalities or other public bodies.

Rural Systems Are Entirely Independent

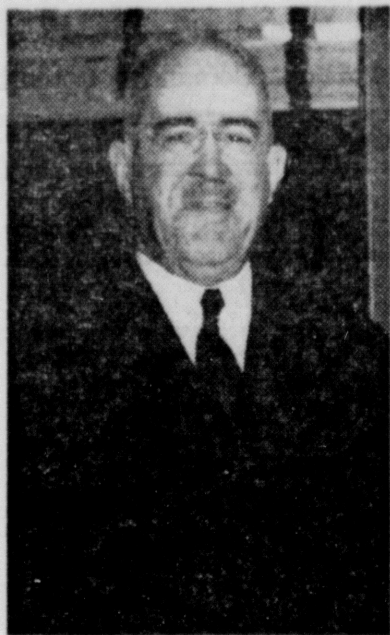
None of the systems was built by Uncle Sam. REA did loan the money with which they were built—but only after the local groups had made plans for building an economically sound system and had signed up enough consumers to support it and to assure repayment of the government loan.

This democratic base of the rural electrification program has been an important factor contributing to its sound growth.

Individually and as a group the rural power systems have grown far beyond their most optimistic early planning. Last year, for example, energy sales by REA-financed electric systems increased by 2.8 billion kwh over the preceeding year. And this increase alone was more than the total energy sold by REA electric borrowers in 1946.

Power Consumption Up 11% In U. S.

Not only are thousands of rural families added to REA-financed power lines each year, (REA electric borrowers added 151,000 consumers during 1954, for example), but also, the longer rural families have electric service, the more power they use. The average farm consumer served by REA-financed lines used 226 kwh of electric power per month in 1954. This was 11 percent more than the average farm consum-



REA's FIRST Administrator was Morris L. Cooke. He was the man picked to get the program started. His record shows the fine job he did in getting a foundation for a successful Rural Electrification Administration which this year is celebrating its 20th anniversary.

er on these same lines used during the previous year.

While energy sales have been mounting, electric rates to rural consumers on these lines have been going down. Cost of power to residential consumers on REA-financed systems dropped to 3.06 cents per kwh in 1954 from 3.22 cents in 1953.

Even while reducing power rates to rural consumers, the REA electric borrowers in 1954 were able to increase their net margins from system operation by nearly 40 percent. REA Administrator Ancher Nelsen attributes this improvement largely to a reduction in the costs of wholesale power put into the systems and to efficient management.

People Make REA Story Good

These dollar and cents figures of the rural electrification story would not be complete without mention of the people

Electricity On Farms Aids Economy

behind the statistics. People give the story its real meaning.

Take the Joe Doakes family who a few years ago were rejoicing because they could discard their kerosene lamps after the power lines reached their farm home. For them push button lighting, an electric iron and an electric refrigerator then probably seemed the ultimate in luxury. Today this same family, typically, would have a house full of electrical equipment and would probably be considering installing an air-conditioning system, an electrical range or a water system if they have not already done so.

Then there's the instance of Bill Smith, the dairy farmer, who has cut down his work and raised the standard of his product by installing electrical milking, cooling, watering, and barn cleaning equipment.

Power Needs Grow In Rural Areas

These and similar cases, multiplied by the thousands, explain the continually growing demand for power in rural areas. They also explain why most REA borrowers have needed to improve and expand their electric systems in order to deliver more power than contemplated in original plans.

Up to January 1, 1953, REA had approved electric loans totaling \$2,946,000,000 to 1,075 borrowers. When facilities financed by these loans are completed, they will provide electric service to more than 4,400,000 rural consumers over about 1,400,000 miles of power line.

REA electric borrowers have chalked up a splendid repayment record on these loans to date. At the start of the year, REA borrowers had paid about \$193,000,000 in interest and re-



TODAY'S ADMINISTRATOR of the Rural Electrification Administration is Ancher Nelsen, a former Lieutenant-Governor of Minnesota.

paid more than \$376,000,000 in principal on their REA loans. This included nearly \$79,000,000 paid ahead of schedule as a cushion against future interest and principal payments. Only about \$307,000 in loan payments were delinquent more than 30 days. Farmers and the cooperative electric systems they operate are good financial risks.

Rural Telephone Program Was Started In 1949

Success of the electric loan program led Congress in 1949 to assign to REA the task of launching and directing a similar program to improve and increase telephone service in rural areas. From the start of the telephone loan program to the beginning of 1955, REA approved a total of more than \$208,000,000 to 163 telephone cooperatives and 148 telephone companies. But that is another story.

Looking to the future, a recent survey conducted by REA shows that electric borrowers plan to construct about \$202-

U. S. Works To Increase Productivity

000,000 worth of new facilities during the 1956 fiscal year. They also plan to connect 125,000 consumers at the rate of about 125,000 a year through 1960. To take care of increased demands of consumers, the electric borrowers plan to use about one-fourth of their loans to improve and heavy their distribution systems.

While the steady growth in power consumption by the average rural consumer has led many REA borrowers to keep up their lines, at the same time it has helped the power systems increase their revenues.

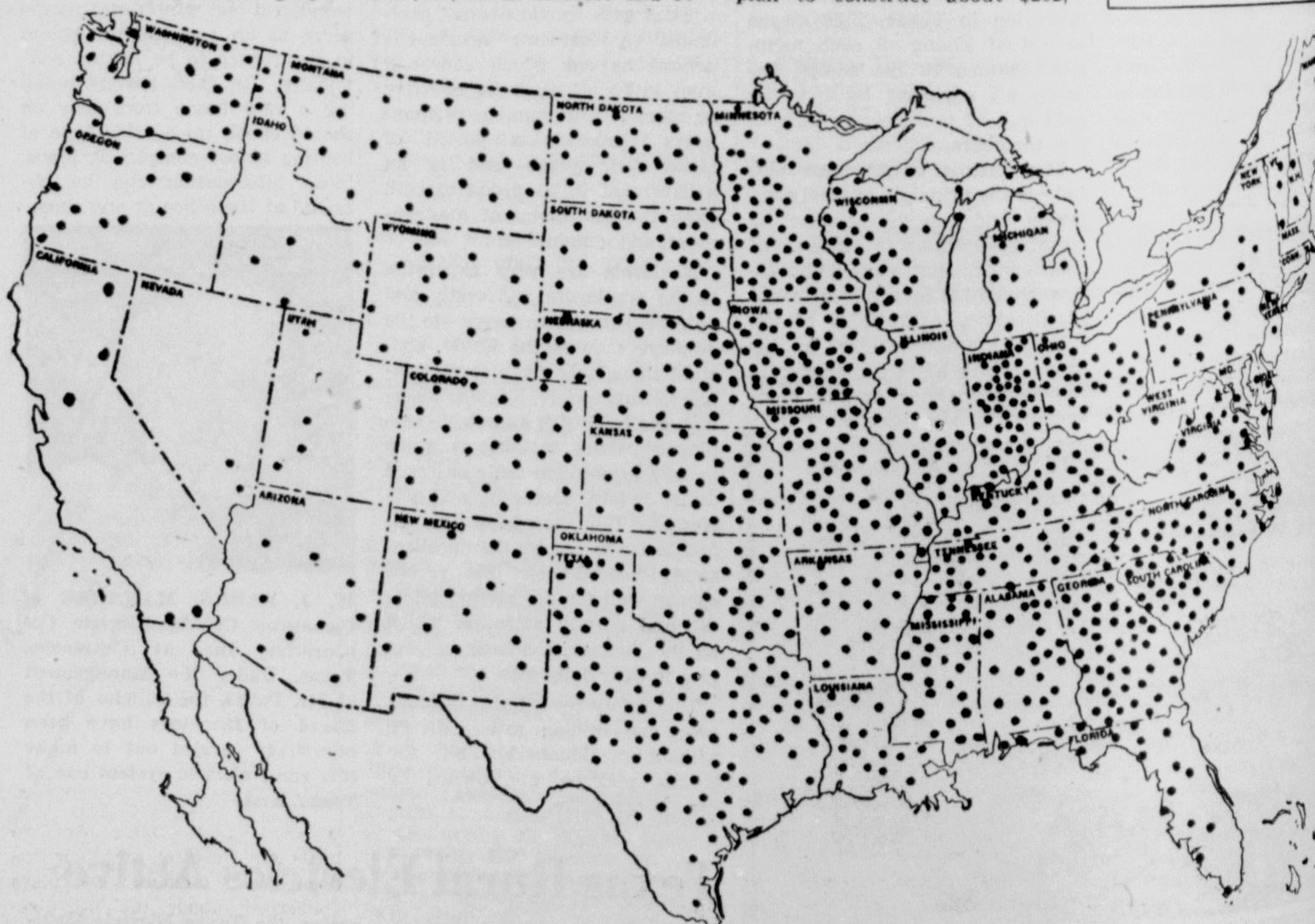
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Rural Electrics Build National Economy, Sen. Lehman Says

"The REA program has been one of the most successful plans our Government has ever adopted," Senator Herbert H. Lehman (New York) told the Senate on the 20th anniversary of rural electrification.

"It is a plan for a people's government to help the people work together to serve themselves. The electric cooperatives borrow money from the Government and repay it with interest, over a period of years. The rural electric cooperatives have developed the farm areas of our country to a level which would not likely have reached without REA.

"The rural electrics have helped to build up the rural economy so greatly that it would now be much more difficult for that segment of our economy to falter and set off a depression such as the one we suffered in the 1930's.



RURAL ELECTRICS are found in 45 of the 48 states of the Union and in Alaska. The dots on the map above show where they are located. There are 1,020 of these rural electrics which are REA-financed. Count them for yourself. Each is an individual corporate structure, operating under the laws of the states in which it is located. Each is farmer-member owned, and is financed from money

loaned by the Rural Electrification Administration for years at 2 per cent interest. The story of the development, progress and future of these rural electrics is told briefly in this special section of this newspaper. It is the story of "progress" in these United States. It is the story of the farmers of the nation who are using electricity as the "around-the-clock" hired-hand.



Power Companies Paid \$57 Million By Rural Electrics

Many Rural Electrics Buy From Commercial Utilities

Congressman Praises 'Sound Partnership' In REA Development

Viewing the 20 years' progress of rural electrification, Senator Lister Hill, Alabama, told members of the Senate:

"When I look back over the last 20 years and find that in our Nation the rural electrification program has progressed from the point where one out of ten farms had electric service to a point where nine out of ten farms have it, with four years out for a major war, it seems to me that this is truly a remarkable record of achievement.

"This kind of progress could only have been made through a sound partnership between the Federal Government and its rural citizens. The partnership has paid manifold dividends in providing higher standards of living for our rural people, in helping to diversify our agriculture, conserve and rebuild our soil and build the strength and prosperity of our Nation."

outstanding common stock increased about 50 percent. These are the earnings remaining after payment of operating expenses, interest on bonds, and preferred dividends.

This is one of the facts which has come out of the development of TVA by the Federal government: that the record shows that these nine commercial utilities have not suffered financially from TVA's influence on electric rates.

TVA Supplies 19% of Rural Electricity

The Tennessee Valley Authority has been one of the big sellers of electricity to the rural electrics since it has been in existence. Last year, 19 per cent of all the power purchased by the rural electrics was purchased from the TVA generators.

This 19 per cent represented 2,753,576,445 kwh of the total of 14,309,755,359 purchased throughout the nation.

Commercial utilities furnished almost three times as much with the Georgia Power Company selling the largest block of power, more than half-billion kilowatt hours. There were approximately 30 commercial utilities selling more than 7 billion kwh to the rural electrics. Many other commercial utilities sold less quantities.

Farm Methods Change with Use Of Electricity

While some farmers have electrically heated baths for the birds and heating mats for the dogs most farmers are more concerned about making electricity produce revenues.

Whether you call them yams or sweet potatoes, they benefit from electricity.

Raymond Averette of Zebulon, North Carolina, starts his sweet potatoes in an electrically heated hot bed. He finds he can grow seedlings in half the time required in non-heated beds.

Nearly half of all the electricity used by the electric cooperative systems in the United States is being purchased from the commercial power companies, a study of the program indicates.

Last year this figure was 46 percent, which represented almost seven billion kilowatt hours of electricity. Last year the rural electrics paid power companies \$57,360,540 for wholesale power.

In the early 1940's, when the rural systems used less than two billion kwh of electricity each year, the commercial power companies were still furnishing about the same percentage of the electricity needed by the rural electric systems throughout the nation.

In 1940, the commercial power companies furnished 51 percent; in 1941 and 1942 the amount was 48 percent; and in 1943 and 1944 it was 39 percent. The highest it has ever been was in 1950, when the commercial power companies furnished 54 percent.

The remainder of the electricity needed came from federal agencies (mostly hydro-power), other public agencies and from generators on the rural electrics own systems.

Actual figures show that the total used by the rural electrics last year was 15,109,349,135, of which the commercial power companies furnished 6,955,176,171 kwh.

The amount purchased from federal agencies was 4,632,031,370 kwh, and from other public agencies 1,221,178,925 kwh. Rural electrics generated 2,300,962,669 kwh for their own use.

Alaskans Pay Plenty for Power

Electricity cost plenty in Alaska according to information available from reports in Washington.

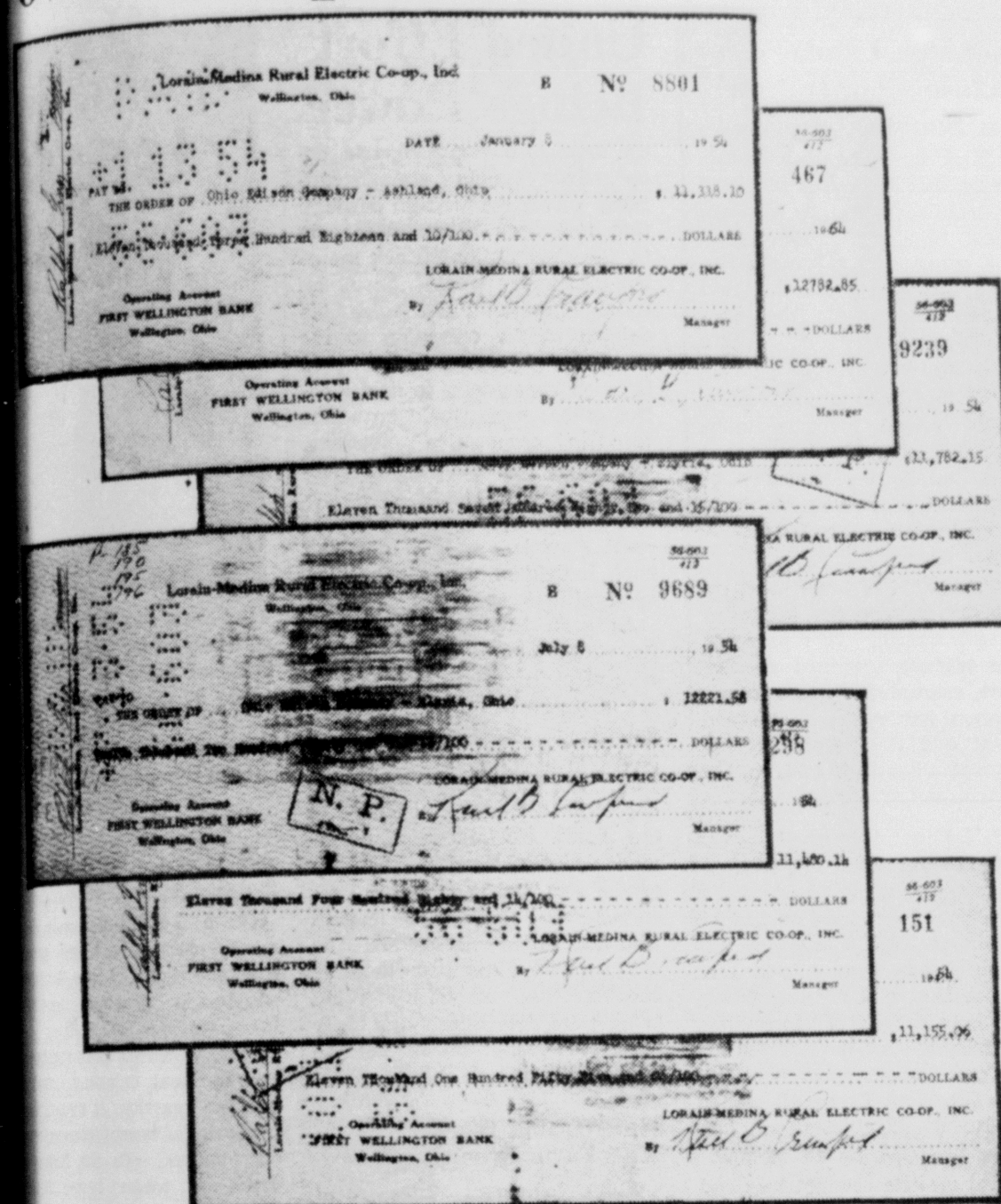
Five rural electrics in Alaska pay from 1.94 cents per kwh up to 4.70 cents per kwh, as compared to an average cost in the United States last year of 0.76 cents per kwh.

The highest cost in Alaska was for 127,648 kwh purchased from the Inlet Power and Light Company for \$6,005, or a cost of 4.70 cents per kwh.

Wholesale electricity for the rural electrics in Alaska is generated by the Chugach Electric Association, Inc., the U. S. Smelting Refining Milling Company, the Alaska Electric Light and Power Company, the Inlet Power and Light Company, and the Anchorage Public Utilities.

Members Attend Annual Meetings

Each rural electric holds an annual meeting of its members and thousands attend to learn first-hand about the operations of the business which they own. They hear reports, ask questions, vote on issues, name directors.



RURAL ELECTRICS are among the best customers of the commercial utilities. During one 12-month period, for example, the Lorain-Medina Rural Electric Cooperative, Inc., of Wellington, Ohio, paid Ohio Edison Electric Company nearly a quarter-million dollars for wholesale power. Rural electrics purchased 46 per cent of

its electric energy from commercial utilities during 1954. This amounted to nearly 7 billion kwh. The total used that year by rural electrics was slightly over 15 billion kwh. Some of the cancelled checks in payment for purchases of power by the Ohio rural electric from the Ohio Edison Company are shown above.

nues available for the support of schools, roads and other essential expenses of local government.

Such is the success story of REA-financed electric systems in 1955—twenty years after the Rural Electrification Administration was established. That the story is only well begun is evidenced by the steady growth of these rural power systems and the mounting demand of rural areas for power. And the past record of REA borrowers promises well for their future—that it will be a continuing success story.

TVA's Rate Influence Aids Power Companies

The Tennessee Valley area has furnished some interesting stories and facts on rates in the electric industry.

The commercial utilities in the TVA area have made the greatest reductions in retail rates and sell wholesale power to REA rural electrics at the lowest rates and have not been hurt by the result.

From 1937 to 1939, when the Federal Power Commission first published financial data, until 1952, annual common stock earnings of the nation's commercial utilities approximately doubled, while their outstanding common stock increased around 40 percent.

Over the same period, for the nine commercial utilities adjoining TVA, common stock earnings multiplied five times and their

wider and more effective use of electricity on the farm. Among other activities, the Council has encouraged the rural power systems to make local marketing surveys to pinpoint the market for electric equipment and appliances. Emphasis is also placed on the dealer's responsibility to sell equipment best suited to the farmers' needs and to provide prompt and reliable repair service in rural areas.

\$4 For Appliances To \$1 For Rural Lines

Already rural electrification has made a major contribution to the prosperity of rural communities as well as to individual farm families receiving power. Surveys indicate that for every dollar invested in rural power facilities, the farmer spends three to four dollars in wiring, plumbing and electrical appliances. On the basis of loans approved to date, this means between \$9 billion and \$12 billion in business resulting from the nearly \$3 billion of rural electrification loans approved to date.

REA-financed electric systems also contribute to the support of their communities by paying taxes. Many rural electrics are among the biggest tax payers in communities. By increasing farm incomes and adding to the value of farm property, the rural power systems also make an important indirect contribution to tax reve-

Farmer-Owned Systems Are 20-Year 'Success Story'

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so strengthen their financial condition.
It is good business alike for electric systems and for rural consumers when these consumers make more better use of electricity. Recognizing this, most REA electric borrowers have power-education programs and a large percentage of the systems have employed electrification advisers to help farm families use electricity effectively in streamlining their farm and home chores.

Power Use Program Valuable To Farmer

Rural power systems also have taken practical steps to help their consumers put this power-use know-how to work. For example, they have made loans to finance farmstead wiring and the purchase and installation of electrical equipment on farms served by systems. Also, they have encouraged the cooperation of wiring contractors and electrical appliance dealers in meeting the power needs of their consumers.

New impetus has recently been given to this program by the Inter-Industry Farm Electrification Council. This council was formed last year by representatives of the electric equipment industry, commercial power companies, rural electric cooperative associations and REA to promote

Rural Electrics Spark Progress Throughout America

Over 1,000 Groups Formed In United States Since 1935

It's been almost 76 years since Thomas A. Edison invented his incandescent lamp — but only 20 since the farmers of the nation started being able to put their kerosene lamps on the shelf and enter their homes lighted with the bright illumination of electricity.

If you've ever had the chore of lugging a succession of heavy buckets full of water into the house for laundry and baths, or awakened in the middle of the night with the horrible realization that a sudden cold snap was about to wipe out a new litter of shoats, or had to read the evening paper by the wavering, uncertain light of a kerosene lamp, you know why farm families throughout the country looked to electricity as a new way of life.

To rural America, the fabled "good old days," or at least those preceding 1935, were days of endless work, each starting hours before dawn and ending long after the sun had set. Drudgery, seemingly compounded by the depression, was forcing thousands of young people to seek work in cities, leaving behind an array of "For Sale" signs and notices of auction.

In order to maintain the nation's supply of food and fiber that had become the backbone for much of our economy, it was necessary to make farm life not only more profitable, but less tedious, raising the standard of living from pioneer levels to modern heights. And that way was best seen through the light of electricity.

Urban Areas Had Lights For 56 Years

By 1935, urban areas had been basking in the light from electric lamps for 56 years, while American farmers were still groping their way through the darkness with a kerosene lamp, despite their appeals to well-established utilities. Year after year, groups of farmers presented their cases to the companies only to be told, in most instances, that because their homes were separated by vast areas of pastures and cropland, it wouldn't pay; it wouldn't be economically feasible.

Many were told that if they wanted to pay for the miles of wire, and pay for all the poles, and pay for the labor to bring them electricity—in advance—they could get the power. Of course, they wouldn't own the lines and the poles, and they'd pay for the same things time and time again in their electric bills.

But this desperate plight of farm people in their fight for electricity and a better way of life did not go unnoticed. The voices of angry legislators demanded to know why America's farm families weren't afforded the same treatment as people living in cities. There was the strong voice of George W. Norris, fondly known as the father of the



A VIRGINIAN is the National President of the National Rural Electric Cooperative Association. He is Jack Smith, of Chase City, Va., also Manager of the Mecklenburg Electric Cooperative.

Tennessee Valley Authority. From Texas, Rep. Sam Rayburn spoke up. Pennsylvania's Gifford Pinchot added his voice to the ever increasing clamor. These men, and legions more, fought vigorously for the rights of farmers to be freed from most of the heavy drudgery of farm labor.

Executive Order Signed In May, 1935

It was May 11, 1935, when farmers had their first chance to look into the future. And it came as President Franklin D. Roosevelt affixed his signature to Executive Order 7037, creating the Rural Electrification Administration. The President authorized REA's first administrator, Morris L. Cooke, to "initiate, formulate, administer and supervise a program of approved projects with respect to generation, transmission and distribution of

Senator Lauds 'Close Cooperation' In Senate Address

"Let the American people know that REA has not been a grant or a gift by Government to a selected group in the community," Senator Hubert Humphrey (Minn.) said in an address to the Senate on rural electrification's 20th anniversary.

"It has been an institution characterized by wise management, sound business practice and by the extension of credit at reasonable rates of interest over a long period of time.

"This kind of investment by the Government has produced untold wealth. It represents the highest standard or the best example of close cooperation between the Government and the people, to the mutual advantage of both."

electrical energy in rural areas."

Even then, it did not end. In the year that followed, there were more heated arguments on Capitol Hill. In fact, it was slightly more than a year, on May 20, 1936, that farmers finally saw their dream of generating, transmitting and distributing their own power approach reality when President Roosevelt signed the Rural Electrification Act, setting up REA as an agency.

Rural electric cooperatives and public power districts were on their way. Where private utilities had indicated lack of foresight, the people of the nation, through their elected representatives, had demonstrated their faith in America's farmers and their ability to use electricity to advantage. They envisioned that with technical assistance and loans from REA, farmers would soon be on the track of a more stable economy without the self-sacrifice of long hours and poor standards of living.

In their enthusiasm for setting

United Effort Brings Power

up their own rural electric co-operatives, farmers stuck steadfastly to the democratic heritage that had been given all people by the Constitution. Each member-consumer would have an equal opportunity to voice his opinion in the operation of the rural electric system; each would have an opportunity to hold elective office; each would have one vote in cooperative elections. And each would have the electricity so long fought for—electricity at cost from non-profit rural electric systems in which each individual would share responsibilities as owner-operator.

As each isolated area strung its wires bringing in the valuable electric current that was to set in motion a new age of agriculture, it became increasingly apparent that those who had said, "No, it can't be done" were eager to block the progress of the rural electrification movement and take for themselves the profits that had been ignored for so long. But farm power leaders who had tasted success and who witnessed the overwhelming benefits that electricity could bring were determined that their hard-won gains would not be taken from them.

State Groups Work With Farm Groups

Within individual states, rural electric systems sought to coordinate their efforts. Statewide organizations began working with other farm groups and state colleges in an effort to secure up-to-date information on better farm management and farming methods. In areas where the initial cost of electricity was exorbitant, or where supply was low, they banded together to generate their own electricity.

With the loans from REA, they spread the doctrine of better living to more than 81% of the nation's farms that in 1935 had no



THE MAN who has been the standing leader of the rural electrics for more than a decade is Clyde T. Ellis, general manager of the National Rural Electric Cooperative Association. He is a former member of Congress from Arkansas.

central station service, bringing the present total to over 20%.

On local and state levels, the rural electric systems grew that the faith of the American people in granting the REA loans was justified. Along Main Street, increased sales meant a revived local economy. And a chain reaction, it meant more business for manufacturers, more employment. To the farmer came to mean better health, higher profits from stock and produce once lost to inadequate storage facilities and higher quality produce because electricity was able to take over many vital chores the farmer once had to do by hand.

And the effect on already established commercial utilities. Rather than impede their progress, it meant more business there too, because half of the nation's rural electric system power is purchased from commercial producers.

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RURAL ELECTRIC directors and managers get together every year to discuss the progress the rural electrics have made and to make plans for the future. Above is shown a small part of this group at the 1954 meeting at Atlantic City last February. Nearly 5,000 were in attendance at the meeting of the National Rural Electric Cooperative Association. The 4-day meeting gave the managers and directors a chance to understand the problems of the electric cooperatives on a nation-wide basis and to make plans to continue the progress which has been a part of the systems since they got started almost 20 years ago. The 1956 meeting will be in St. Louis.



Over 1,000 Rural Systems Organized Since 1935

National Rural Electric Cooperative Association in 1942

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With all their gains, farmers soon found that this newly won step in progress—the existence of their locally owned and locally-controlled electric systems, had to be defended from any outside influence. There were those who tried to poison the minds of the farmers by waging propaganda against the systems. Others who tried to force successful cooperative business into bankruptcy. Farm leaders realized the necessity for a representative in the capital to speak out for the rural electric systems throughout the country, an organization that could act as a source of information to the government, an organization to coordinate the efforts of a unified electrification program as a personal envoy, an organization to present the needs of rural electric systems to Congress through yearly appropriations, controls the amount of loan available through REA.

In 1942 when the National Rural Electric Cooperative Association was organized to satisfy the needs. To the original ten incorporators who were given membership, there have been more than 900 rural electric systems in 42 states and territories, resulting in one of the nation's most outstanding voluntary service organizations.

To assure equal representation, each state has an elected member on the Association's Board of Directors. And within each of the 10 geographic regions, an executive committee is elected; the governing body headed by a president, vice president and secretary-treasurer.

Services Available from New Organizations

In one organization, rural electric members are able to obtain many of the specialized services required for optimum efficiency in the various fields that make up a successful rural electric system and which means service to individual members, consumers and their communities.

Working to assure adequate funds for rural electric systems, NRECA provides Congressional committees with the latest statistics available from its sources. It assists representative systems in their united appeals before these committees. When vital public issues concerning rural electrification are presented for action, NRECA has led the fight to protect the rights of the systems. Through all its daily efforts, vast membership is kept abreast of proceedings through the news reports in its own magazine, *Rural Electrification*, and through its special news service. But information through NRECA is not confined to legislative matters.

Other Use Given Educational Aid

Recognizing the value of more widespread applications of electricity, the Association is carrying on an active program of education in the field of power use. Again, coordinated effort is made through member systems, and through them, the individual member-consumers, with the best information on electrical

Congressman Says Rural Areas Benefit By Systems' Taxes

"The accomplishment of the REA program is more than a success story," said Rep. Lester R. Johnson (Wis.) on May 11.

"REA-financed electric systems also contribute to the support of their communities by paying taxes. Many electric co-ops are among the biggest taxpayers in their communities."

"By increasing farm incomes and adding to the value of farm property, the rural power systems also make an important contribution to tax revenues available for the support of schools, roads and other essential expenses of local government."

appliances and equipment, with suggested new uses for the more common appliances, with news of electrical equipment that is in the experimental stage.

This tremendous combined effort of rural electric systems is paying off in still another field—that of insurance and retirement for employees and their families, and through them, the entire local community.

Soon after the first rural electric systems were incorporated, it was discovered they were not in a position to offer their employees the life insurance, employee welfare benefits and other employee incentives equivalent to those offered by private utilities and industry as a whole. The systems thus encountered difficulty in securing competent employees and they soon found they had to band together and through cooperative effort establish programs which would satisfactorily take care of their own.

Retirement Benefits Offered All Employees

As more and more systems were established and the cooperative program grew, the gap between the benefits offered by the rural electric systems and



RURAL ELECTRICS not only measure electricity, they also measure beauty. Each year when managers and directors of rural electric systems from all parts of the nation get together for their annual National Rural Electric Cooperative Association's meeting, they look for beauty and charm. Above, Miss Bonnie Bunch, of Illinois, was the 1954 winner at the contest at Atlantic City.

the large utilities and their employee organizations was eliminated. Today, this cooperative retirement program offers retirement benefits to more than 6,000 employees and provides unusually large insurance benefits to the beneficiaries of these employees. From this small cooperative start, the retirement fund now exceeds \$4-million.

Here is permanency. Here is incentive to settle in a community and grow with it. But the story doesn't stop there.

Recognizing the tremendous responsibility in their hands, rural leaders are carrying on an aggressive war against carelessness and accident. Through many employee job training and safety programs, the knowledge and practice of safe methods of

work and proper training in first aid has meant the saving of countless lives—lives not only of employees, but others as well.

This, of course, is only the merest sketch of the National Association's work for rural electrification systems and the country.

The Story of Electricity Is Story of the People

Each day, in every community across the country where a rural electric system has been established, the benefits accruing from this necessity of electricity are visible, because the story of electricity is the story of people.

The rural electric's staff in itself is made up of highly skilled personnel, dedicated to the service of the member-consumers who are amply and ably represented by the system's board of directors elected from the membership to guide the program.

Established with the idea of bringing electric service to the greatest number of people in rural areas, rural electric co-ops act on the premise that the local people, the people within each separate community, are in the best position to determine what best suits the needs of local demand. And witnessing the outstanding success the systems have experienced, it's understandable that they should be proud of the often-heard expression, "locally owned, locally controlled."

The determination to succeed is proven daily by the remarkable record of loan repayments to REA where rural electric systems have established the enviable mark in any banking world—less than 1/2 of 1% delinquency. But on the local scene, the sound of cash registers ringing up increased sales is a record of its own.

Since the advent of electricity in rural America, the hard-working small town doctor has seen an upswing in rural health; the country school teacher has watched new interest spring

NRECA Board Directs Work Of Electrics

alive in youngsters who could study their lessons by the light of an electric lamp. With more heavy work taken over by electricity, farm families have more time for relaxation—a rare commodity before the revolution of electricity on the farm.

Many Uses Are Made Of Electricity on the Farm

Today there are at least 400 known uses of the vital electric energy on the farm. They run the gamut of practical uses, from electric lights to barn cleaners, from ironers to water systems. But it doesn't take a mathematical wizard to understand that with increased use of electricity, the need for the basic commodity becomes increased as well.

This is just one of the many problems facing rural power leaders in America today—getting sufficient firm energy at reasonable rates to provide farmers the electricity they so urgently need.

And of the future? NRECA and its grass roots committees are working continually in an attempt to bring electric light to the areas still without the blessing of electricity. The job is far from complete.

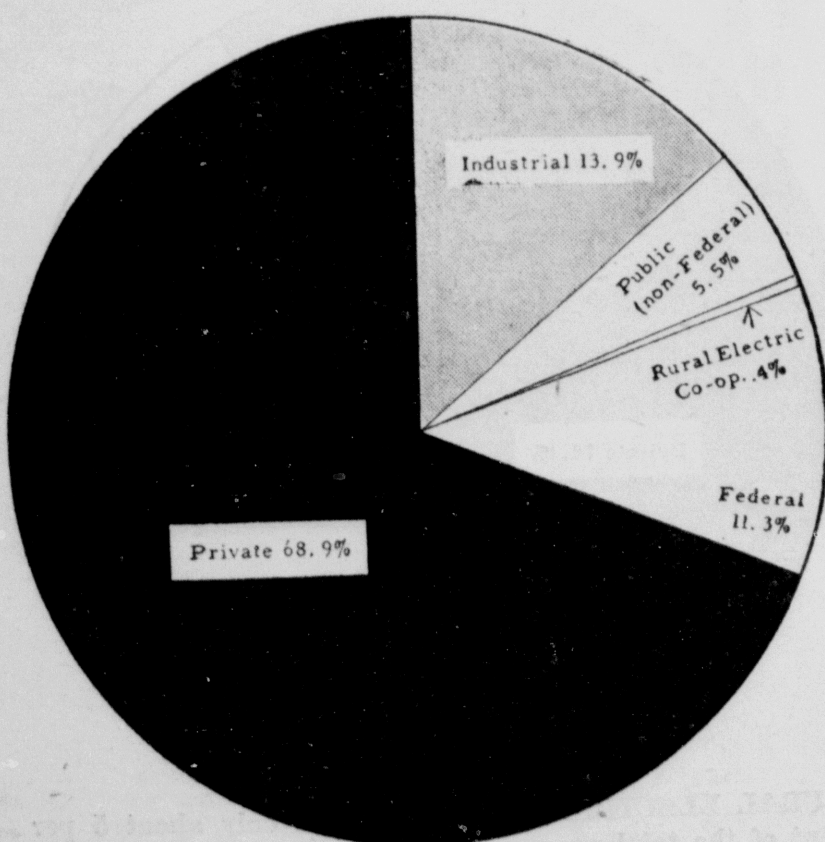
Today the electric utility industry is standing on the threshold of another gigantic stride in our modern age—the vast world of atomic power. And although the project is still in its infancy, America's farmers have already shown their eagerness to participate. They don't want to be kept waiting another half century before they can share in this great miracle.

Rather, they want to help in bringing the miracle into being and even now, through a special committee set up recently, are studying possibilities of atomically generated power for rural areas.

Old Cook Stoves Can Become Antiques

It's taken a long time to reduce the old cook stove to an antique. And for those who've lived through the dramatic change in farm life, the memories of water buckets and hand irons are beginning to mellow with humor. But the determination to maintain their new found freedom over pioneer conditions will never die in their hearts.

America's farmers look to the future with eager anticipation. They want to share in the work that will mean progress for the nation. More than 1,000 rural electrics, operating as independent tax-paying cooperative businesses, the statewide associations, the National Rural Electric Cooperative Association and the many grass roots committees look to the betterment of the membership on all levels and will continue to work hard to secure an enduring economy for themselves and the nation.

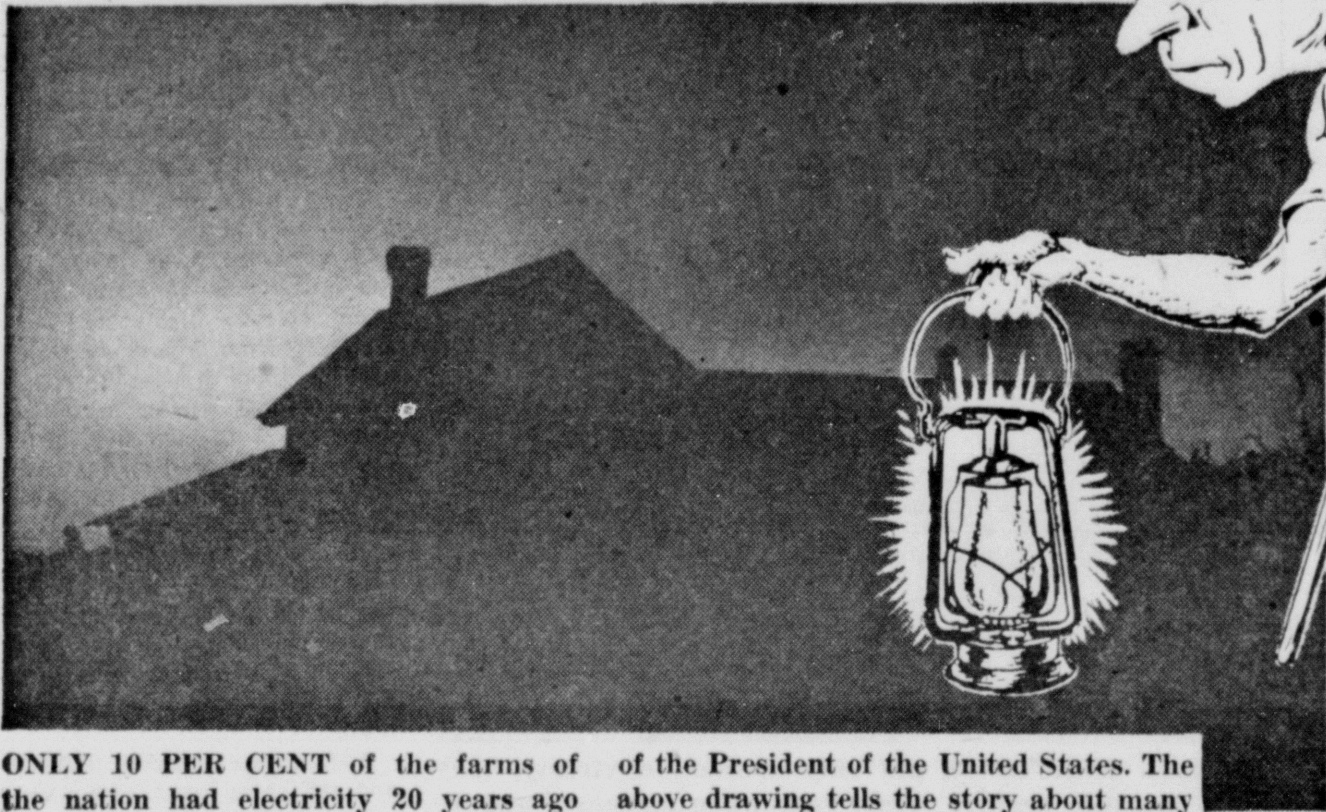


RURAL ELECTRICS generate less than one per cent of the total electric power generated in the United States as shown by the chart above. Private corporations generate nearly 83 per cent of the electric power used throughout the United States.



REA Is Banker for All Rural Electrics In the Nation

BEFORE



ONLY 10 PER CENT of the farms of the nation had electricity 20 years ago when the Rural Electrification Administration was created by executive order of the President of the United States. The above drawing tells the story about many farmers of the nation before 1935. After sun-down, the oil lantern was the "light."

REA Lends Necessary Funds At 2% Interest to Electrics

When men of business pool their brains and cash to accomplish something, it may be known as a "venture" or an "adventure." The latter word implies more risk. The big fat dictionary says an "adventure" is "a bold undertaking in which hazards are encountered and the issue hangs on unforeseen events."

In just about every sense of the word, the banking career of the Rural Electrification Administration would have to be defined as an "adventure."

It began 20 years ago on May 11, 1935, with a loan prospect which appeared to have no more resemblance to conventional banking practices than the "21" table at Las Vegas.

What REA proposed to do was get electricity on the farm by a long term, low-interest loan plan. The borrowers for the most part were organizations made up of farmers who were investing \$5 of their own money as membership fees. The newly formed business had no staff and no experience. The directors were men without a day of experience in the utility field.

Those who had the experience in the rural field questioned the possibility of profitable return because of long lines, the great distance between farm homes, the hazards of weather and climate and little indication on the part of the farmer that he was going to be much of a customer for electricity.

Farmers and farm organizations thought that the non-profit cooperative form of business gave them the best chance for success.

REA let it be known that it would make loans supplying 100 per cent of the capital needed to build rural electric systems and get them into business.

New Words For The Rural Vocabulary

Rural electric managers and directors as well as REA personnel who went through the early period recall it as a time of utter confusion.

Farmers, with the prospect of electrification in sight, were most vocal in expressing their opinion of any real or fancied delay. REA's hastily recruited staff went out to the field to insert words like "project", "coordinator", "expedite", and "allocate" into the rural vocabulary.

Farmers, housewives, county agents, country lawyers, ministers, school teachers and even school children got caught up in the enthusiasm.

But it took more than enthusiasm and need for service to get "lights." Harassed Morris L. Cooke, first REA Administrator, had this to say after wading through a flood of loan applications:

"Much as farmers have wanted electricity, they have not seen the way clear to overcome the obstacle presented by the necessity for financing, promotion, construction and operation. One doesn't go into a retail store and buy a package of electricity over the counter."

Before farmers could even apply for a loan, they needed an organization. They had to retain legal counsel, organize a corporation, elect officers and pass necessary resolutions. In many states, new legislation was required before the non-profit cooperatives could operate. Then

Congressman Lauds Repayment Record On REA Birthday

The rural electric systems' repayment record is one that "across the years, I doubt can be matched in any area in the history of American banking," said Charles Melvin Price, (Ill.) before the House of Representatives on May 11.

"The excellent repayment record of REA borrowers, the additional taxes they have paid, the tremendous benefits that the REA has spread across the Nation, make the rural electrification program one of the most remarkable achievements of our times," he said.

the organization had to decide on the territory it was going to serve, estimate the revenues it

REA's Technical Assistance Sped Rural Electrification

would have and hire an engineer to determine system design. Members had to sign up for service and legal releases obtained for line right-of-way.

First Loans Made On July 7, 1935

Then there was the matter of hiring a "project coordinator", locating a source of power, getting a commitment on power rates and then determining how much loan money was going to be needed. In a good many loan applications, not much attention was paid to plans for loan amortization or schedules for regular payments on interest and principal.

REA made its first three loans

on July 7, 1935. All were rural electric cooperatives. September 24, 1935, 22 more loans were made including municipalities, public power districts, electric companies and cooperatives.

Loan applications were pouring in, many of them properly prepared. The task was not one-sided. REA was still too inexperienced to know how to help. By 1937, only a million in loans for electrification had been made, although the Congress had authorized \$1 million in loan funds.

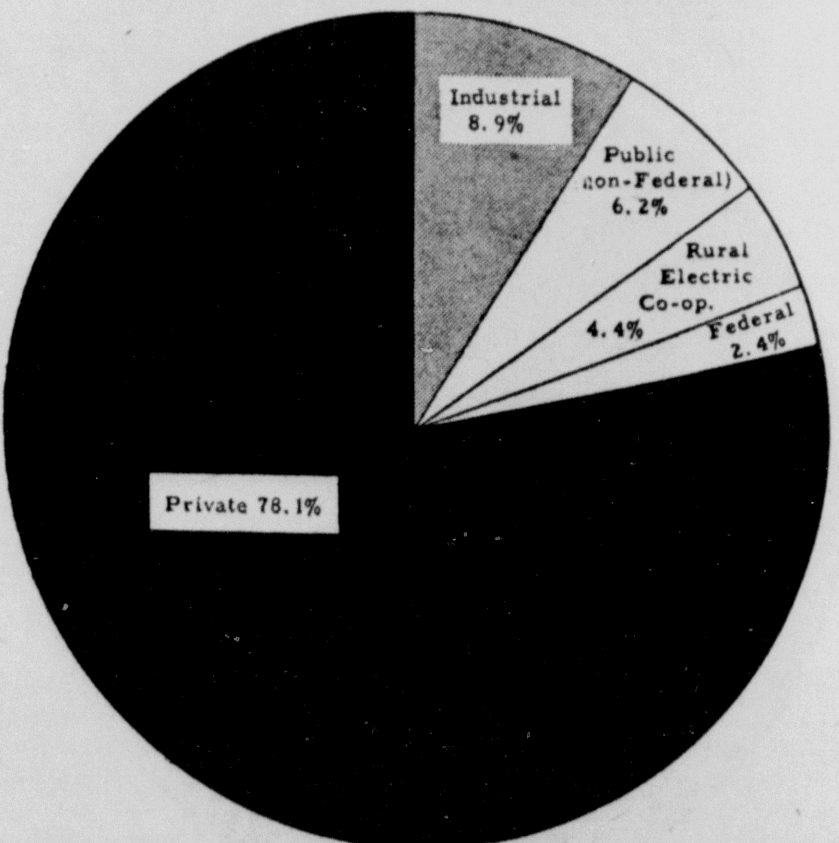
It was at this point that a basic decision had to be made. It was clear that REA operated simply as a bank was not going to be able to accomplish widespread rural electrification. What REA had to do was loan technical know-how as well as money. Some have criticized this decision as "paternalistic" or "spoon feeding." But shortly the concept of REA as a clearing house for technical and managerial know-how gained acceptance.

REA loan field representatives went out into the country, not drum up trade, but to get organizations started on sound foundations. Most of them were as enthusiastic for farmer success as the farmers themselves.

There's a story, possibly true, of one zealous fieldman driving in the country. He was drawn by the music of a country band meeting. Caught up by the enthusiasm he took over the pit, delivered a sermon on rural electrification and started a rural electric cooperative right on the spot.

The job of REA personnel now seen as one of inspiring and developing leadership and management improvement instead of doing the job themselves.

REA always welcomes requests for information about the rural electrification program.



RURAL ELECTRICS are recipients of only about 5 per cent of the total revenues paid to electric utilities by customers and members. Private utilities received over 78 per cent of the revenues, amounting to some \$5,660,417,008, while rural electrics get only \$321,407,348 in revenues each year. The total paid for electricity in 1952 was \$7,251,152,573.



Rural Electrics Are Repaying Loans With Interest

AFTER



NOW 97 PER CENT of the farms of the nation have electricity thanks to the leadership provided by the Rural Electrification Administration. Rural electrics are those corporations, organized under local

distribution lines to farms all over the United States. Commercial utilities serve many rural areas, too. But to the rural electrics go the lion's share of the praise for bringing "light" to rural America.

Rural Electric Systems Make Outstanding Payment Record

to the farmers borrowed the \$3 billion—will they pay it back? The 20-year record of rural electrification borrowers of the Rural Electrification Administration indicates that repayment prospects are above the average for any type of loan institution anywhere.

got into operation. The total loss to the Government comes to around \$40,000.

Thus far, borrowers have paid around \$568 million in principal and interest. Of this amount, a little over 78 million was paid in advance by 745 borrowers. On the red ink side, 13 borrowers are more than 30 days overdue in payments of principal and interest.

The rate of delinquency is at the lowest mark in REA history.

Three rural electric systems

have retired out of earnings their debt to the government in the past two years. In all three cases, system revenue was dependent on the agricultural load.

3 Systems Have Repaid All Loans

Henry County Rural Electric Membership Corporation retired its \$655,513 loan in April, 1953. Under the debt schedule, the final payment was due in October, 1966. In addition to paying the principal, the borrower paid \$162,947 in interest. The system operates 700 miles of line and serves some 3,250 members.

The tiny Gowrie Rural Electric Cooperative, Gowrie, Iowa, paid

Electric Systems' Record Wins Praise Of Sen. McClellan

Since the beginning of rural electrification, "\$3 billion have been loaned to 1,000 rural enterprises—mostly cooperatives—through which four million consumers are being served," Senator John L. McClellan said on the 20th anniversary of rural electrification.

"It is a tribute to the program that these loans are being repaid not only promptly but in many instances ahead of schedule. Of the total loans made, \$375 million in principal has been repaid, of which \$80 million represents payments made ahead of schedule," he told Senate members. "Delinquencies are very small. Only 13 borrowers, with total loans of \$250,000, are in arrears in payment on principal and interest. These, I am sure, will soon meet their obligation."

off its \$61,204 loan in 1954, some 28 years ahead of schedule. The system serves 200 rural consumers and operates 62 miles of line.

In April, 1955, Boone County Rural Electric Membership Corporation with headquarters at Lebanon, Indiana, paid off its debt of \$727,926. During the life of the loan the borrower paid \$182,408 in interest. The Boone County payment came a few months in advance of the 20th anniversary of the loan. The cooperative was one of REA's first three borrowers. The date of its first loan was July 22, 1935. The system serves 3,400 rural consumers and operates 770 miles of line.

At the same time that the Boone County REMC was meeting the debt obligations, its members were investing \$509,251 in the form of operating margins. The system now has a debt free plant valued at \$1,200,000. In 1938, consumers had an average use of 43.5 kilowatt hours a month. In 1955, this average was 508 kwh a month. During the

same period, the average service bill increased from \$2.68 a month to \$12.32.

Paul Morton, president of the Boone County system, says:

"We farmers have been taught that it is thrifty and sound business to pay off the mortgage."

The possibility of do-it-yourself financing is now being considered by the management of the Indiana system. They feel that the member-owners of the system may be willing to supply capital in the future at reasonable rates of interest. No definite plan has been adopted.

REA Lists Total Money Loaned Groups

The Rural Electrification Administration has made loans to 1,075 different borrowers in the total amount of \$2,990,177,211.

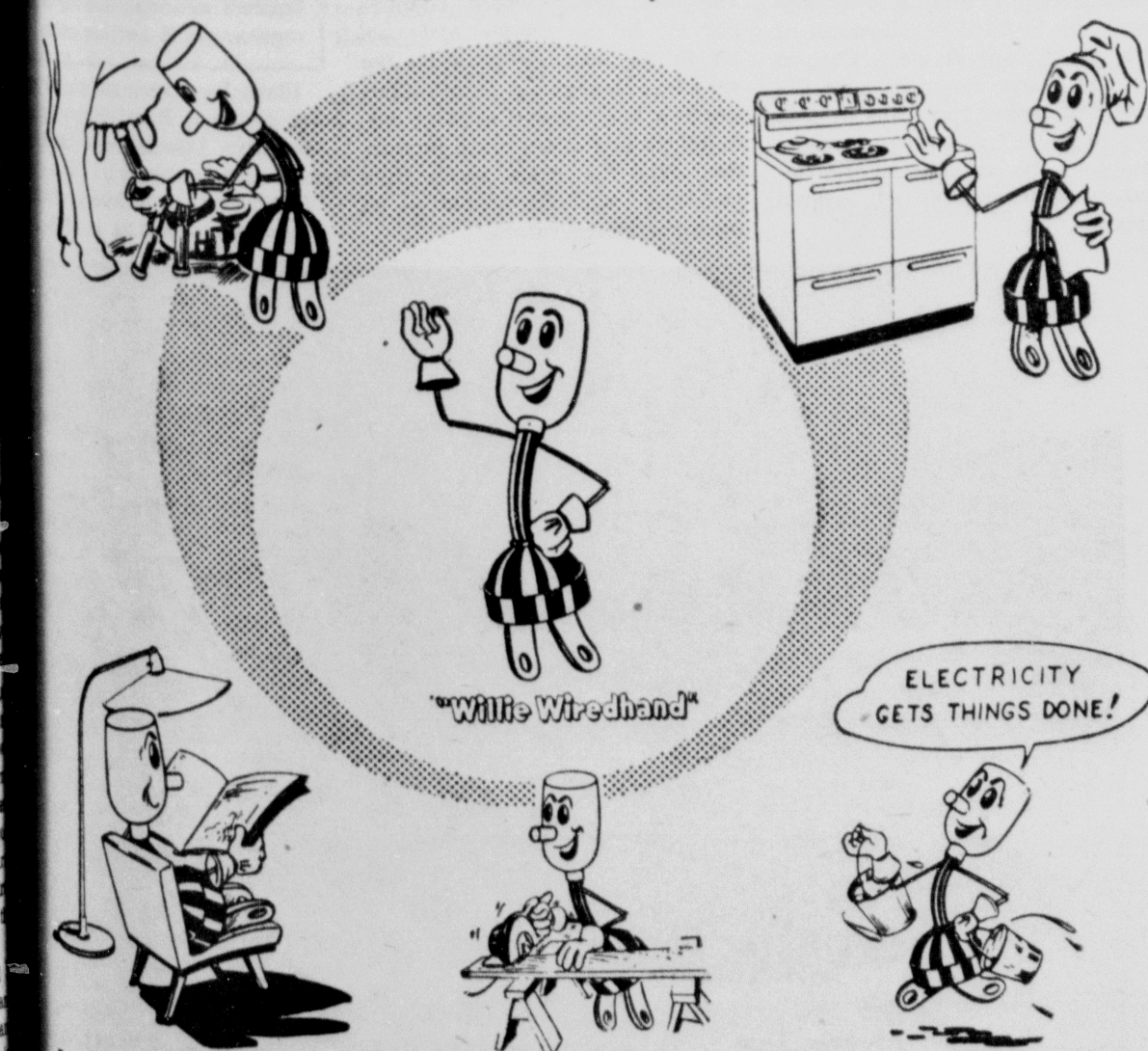
Of this total number, 977 were made to rural electric systems, 47 to public power districts, 26 to other public bodies, and 25 to commercial power companies.

Most of the money loaned was for distribution systems. Only \$552,332,770 was for generation and transmission systems, and \$24,476,398 for other consumer facilities.

The total for distribution systems was \$2,413,368,043, and all of this was loaned at 2 percent interest rates.

4 New Systems Are Organized

In the same two-year period that three REA borrowers were paying off the mortgage, REA made loans to four new rural electric cooperatives.



"Willie Wirehand"

ELECTRICITY GETS THINGS DONE!

Copyright, 1955, National Rural Electric Cooperative Association

MEET "WILLIE WIREDHAND", one of the greatest friends a farmer ever had. He is the symbol of the rural electrics and he plays an important part in effici-

ency and progress on the farm and in the rural home today. There are more than 400 ways to make use of electricity and "Willie Wirehand" is always there.



Hydro-Plants Reduce Power Cost to Rural Systems



RURAL ELECTRICS generate some of their own power. Above Ancher Nelsen, the REA Administrator, is shown signing a \$3.5 million REA loan to the Arkansas Valley G and T, Inc., of Pueblo, Colorado. The borrower is a new rural electric that will operate in Southeastern Colorado. Its

proposed 16,500 kw generating plant will be built and lease-operated by the Southern Colorado Power Company. Cris L. Schultz, head of REA's western area and Ralph Foreman, special assistant to the Administrator in power supply matters, watch the Administrator sign the loan.

U.S. Power Program Helped Growth of Rural Electrics

Without the Federal power program, the electrification of the rural areas of the United States would have been delayed for many years. When the Rural Electrification Administration was established in 1935 the commercial power companies were of the opinion all of the farmers who wanted or could afford modern electric service were already being served. At that time this included only 11% of the nation's farms.

When the Tennessee Valley Authority was organized, farmers in the area insisted that they should benefit from the power generated at the great Federal dams. In an effort to keep costs of retailing power down, the TVA sponsored the organization of farmers' electric cooperatives to serve rural areas. From the TVA the idea spread to millions of farmers who had been waiting for modern electric service.

In later years in the plains and mountain states of the West, electrification of rural areas became financially possible only with the coming of cheap power from the great Federal dams.

Today almost one-third of the rural electric systems buy their wholesale power from the Federal government. They are protected in this power supply by a 50-year-old Federal policy which gives them right of first purchase of Federal power.

Even though the rural electric systems have this right of first purchase, which is known as the

"preference" clause, these systems buy only 5.9% of all Federal power generated while the private power companies buy 20.7% or almost four times as much.

The percentage of Federal power purchased by the cooperatives is a small part of the total but it is enormously important to the cooperatives and public power districts which serve rural areas because it is low-cost power.

The cost of supplying power in rural areas is relatively high because the lines which connect customers are expensive and some of the rural electric systems have as little as one consumer per mile.

In the cities it is not uncommon to have as many as 200 consumers to the mile. This gives some idea of why it is so much more expensive to serve rural areas and also explains why low-cost wholesale power is so important to rural electric systems.

There has been a great deal of talk in recent years about a Federal power monopoly, but this talk has been the result of a lack of information or a deliberate desire to misinform the public. In 1953, the latest year for which complete figures are available, the Federal government generated only 10.6% of all electric power generated in the United States. All of this power was sold at wholesale because the Federal government does not retail electric power.

Hydro-Power Means Low Cost Electricity

Throughout the years the farmers and their organizations have supported the Federal development of water power resources. The explanation for this support is simple: Low-cost Federal power means rural electrification and low electric rates on the farms. The farmers, hungry for access to the modern miracle

of electric energy, have done all they could to get power as cheaply as possible for the home and for the barn.

In areas where there has been no Federal power, the rural electric systems have struggled to get the Congress to develop the water power resources and for the same reason: Low-cost power.

Farmers, of course, have another interest in Federal power projects outside the rural electrification program. High grade phosphate fertilizer requires low-cost electricity if the production is to be low-cost. As a result, farmers in the middle West support the Federal development of the great dam at Hells Canyon on the Snake River because the low-cost power from this project would make feasible the development of the nation's largest deposits of phosphate rock located nearby.

Generation and Transmission Important to All Electrics

The rural electric systems in the United States sell a tremendous amount of electricity each year to their farmer members. In 1954 the total energy put into the rural electric systems was over 15-billion kwh.

This supply of electric power comes from four sources: (1) Private power companies; (2) Federal power agencies; (3) local public agencies, like city-owned plants; and (4) farmer-owned generating plants.

The cooperatives generate only a tiny portion of the electric power generated in the United States. In 1954 they generated only 15% of their total requirements.

Rural electric systems build generating plants only when: (1) No adequate supply of electric power is available from any other source, or (2) when they can save money by building their own generating plant. This accounts for the small percentage of generation by farmer-owned systems, but the "right and opportunity" to borrow money from the Rural Electrification Administration is of great importance.

If a commercial power company does not have sufficient capacity to meet the needs of the farmer-owned system or tries to charge too high a rate for the power, the farmers can make

plans to build their own plant or actually do so if they cannot get a satisfactory arrangement with the local power company.

The first loan to a cooperative for a generating plant was made June 23, 1936 to Prince William Electric Cooperative, at Manassas in Virginia. Since then, loans for generation have been made to a total of 171 cooperatives. Fifty of these loans are for generating facilities for their own use, but 31 were made to federated cooperatives which serve or plan to serve a total of 326 member distribution systems when they are completed.

The extent to which generating facilities will be built in future years will depend on two factors: (1) The availability of power from Federal projects at low rates, and (2) the ability and willingness of the commercial power companies to sell low cost power in non-federated power areas.

Rural Electrics' Future Needs Cited By Congressman

Looking to the future, John Francis Shelley, (Calif.) told members of the House of Representatives, "REA's electric loan program has accomplished what we might call a miracle."

"But even so its job is not finished. There are still farms without electricity, and there is still a great job to be done for those farms that are served by REA lines. It is a job for REA, the farmers, and their co-ops together. There are increasing demands for more and more electric energy for better living and more efficient farm production. Our farmers need and want more electric equipment and it will take more electric energy to serve these heavy demands."

"REA's task then is not finished or completed by any means. It is just beginning."

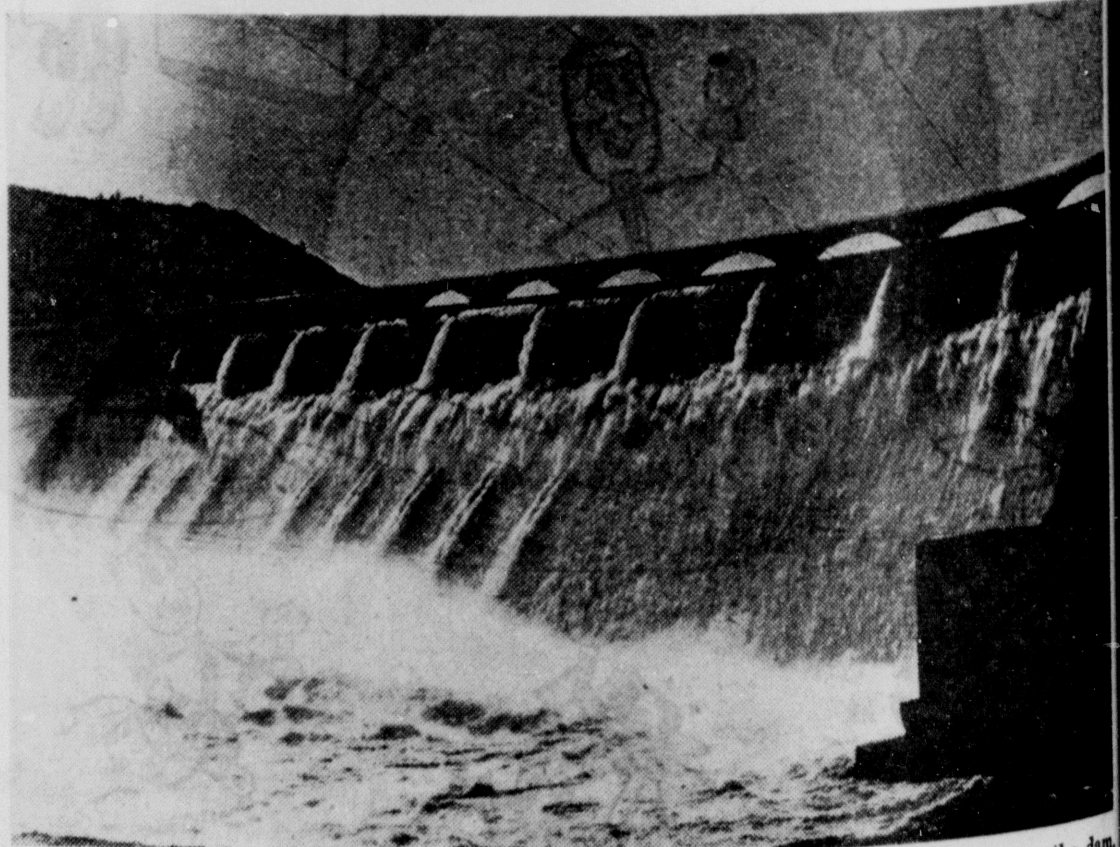
Plans have been completed for the National Rural Electric Cooperative Association to build its own headquarters building in Washington. It will be ready for occupancy sometime in 1956.

400 Power Uses Found on Farm

A cross section of samples of productive uses of electricity now number around 400.

Farmers use electricity to save time, labor and money. They use it to increase quality of production, storage and processing. Electricity makes it possible for the farmer to have a mild amount of control over climate.

The air-conditioned pig pen and the air-conditioned dairy barn is not too far in the future. The heat pump which supplies hot air in the winter and cool air in the summer may be the answer. Heat pump installations are now being tested in farm out-buildings and when mass production gets the price down they may be as commonplace on farms as refrigerators.



RURAL ELECTRICS get low cost power from hydro-electric projects such as the Grand Coulee dam on the Columbia River in central Washington, which is shown above. The picture shows the tremendous

force of water as it pours over the dam. Part of the power generated is used for pumping water over the mountains into the Grand Coulee for irrigation in the Columbia River area.



Atom Program May Be Pattern for Future Power Rate

New Atomic Power Reactor Is Developed

A new atomic power reactor has been designed by the General Electric Company, which says it is a "major advance toward the economic generation of electricity from atomic energy."

Vice-President Francis McCune has announced the new reactor would be able to produce several times as much power in a given size as its predecessor, the direct boiling reactor.

Rural electric systems are actively interested in the atomic power program as a future source of abundant, low-cost power. Through the National Rural Electric Cooperative Association's Atomic Energy Study Group, rural electrics are following closely the progress of atomic power.

Commonwealth Edison Company, Chicago, Ill., plans to use the new design in a proposed 180,000 kw nuclear generator station, the General Electric executive said. The proposed plant is among the largest of all nuclear power plants yet proposed. Its construction is subject to approval by the Atomic Energy Commission.

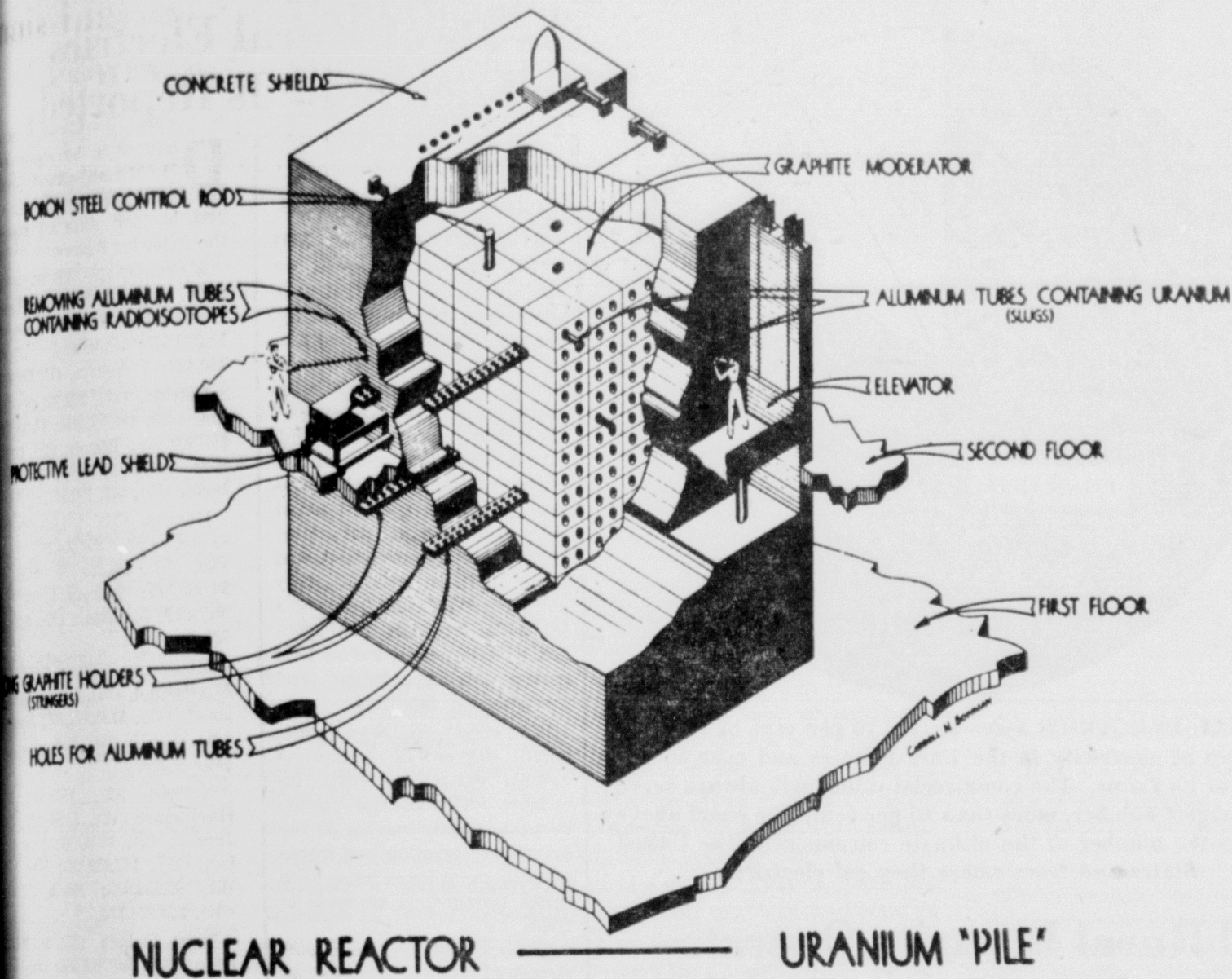
The new design is a dual-cycle boiling reactor. McCune said the reactor could be used "without heat exchangers by generating steam directly inside the reactor. This would eliminate the need for high operating pressures and temperatures used in liquid water cooled power reactors."

"Scientifically speaking, and from the practical side as well, the dual-cycle boiling reactor takes industry past the pioneering stage and into development of practical peacetime use of the atom," McCune declared. "It is a stride forward in helping guarantee economic power and stability of America."

Other attractive features of the new reactor included: (a) the safety features of the direct boiling reactor are retained in the new design; (b) the stability with relation to the load has been greatly improved, and (c) the new reactor meets the demands of the power system without requiring changes in reactor controls, by providing steam at two different pressures.

New Enterprises Made Possible By Electricity

To the dairy farmer, electricity with the milking machine, refrigerated cold storage and hot water for sanitation means Grade A milk at a premium price. In Southern states, electricity on the farm has made possible new farm enterprises. For example, Hillard Neyues of Jennings, Louisiana, once raised but a single crop—rice. When electricity came along, he built up a 26-cow herd and promptly added around \$500 a month to the family income.



ATOMIC ENERGY is the hope of the rural electrics and commercial utilities as well, as the world gets into the atomic age. Above is a drawing of the "nuclear reactor" in which electric power will be produced. It looks com-

plicated. It is complicated. But the fact remains that from such a plant as the drawing above represents, atomic energy has been used to produce electricity, and that electricity is made possible today to a few users in these United States.

Atomic Energy Will Mean More, Cheaper Electricity

America today is living in the atomic age. This means that rural America is a part of this new era and must take advantage of modern developments if it is to continue to play its major roll in the success and security of the nation.

In this atomic age, electricity is here. Such as are now being made in one of the nation. But developments of the use of atomic energy for electricity are not to point yet where wide-spread use of this new servant is evident. What is the story of electricity and the use of atomic energy? What will it do to the prosperity on the farms in these United States?

Fuels—uranium and plutonium—are basically cheap and plentiful and it seems clear that in his never-ending search for heat and power will utilize

The first goal is to develop at least one type of reactor to be economically competitive with conventional power plants, at least in some areas of the United States. It seems now that a realistic look at the cost of construction of these "nuclear boiling" reactors indicates lower costs than thought at first.

In essence, the expansion of atomic power may be said to depend upon the degree of cooperation of the producers of power and the manufacturers of equipment in the eventual achievement of economic nuclear power. It is not upon actual achievement at the time of investment. Already the Atomic Energy Commission has authorized a power study by the National Rural Electric Cooperative Association. NRECA will finance a one-year study under AEC's Rural Participation Pro-

In this plan the rural electrics will study various atomic power reactor designs in the light of specialized needs of the rural electric systems.

Today, according to Clyde T. Ellis, general manager of NRECA, the rural electrics stand on the brink of one, if not the greatest, of man's conquests—the conquest of the atom itself. He said:

"From here on we can still utilize the power of the sun in field and forest; we can utilize the power of the sun which lifts the water from the sea and controls the winds that move it to

the land where it can be harnessed as it runs back to the sea; and we can still utilize the old deposits of fossil fuels, products of the sun's energy ages ago.

"But now we have learned a new great secret: We can—we have already—created 'little suns' of our own! For the sun is only a huge atomic reactor, and we, at last, have learned to create small 'suns' here on earth. From these midget suns, from atomic reactors, we can generate incredible quantities of low-cost energy.

"This does not mean that conventional methods of electric generation will soon become obsolete. They will not. It means that the coming of atomic fuel to the power industry will sup-

plement but not replace other generation processes. Hydro-power for instance, will be cheapest for some time yet where available, but we are rapidly running out of good hydro sites.

"Atomic energy will simply give us more power and, in the non-hydro areas, lower costs. It will stimulate beyond anything we can now imagine our present free enterprise system. It will add unbelievably to our military strength.

"If our rural electrics are to survive and grow with the need, they must share in the atomic energy program," Mr. Ellis said.

Few people understand the tremendous value of this program to the rural electrics.

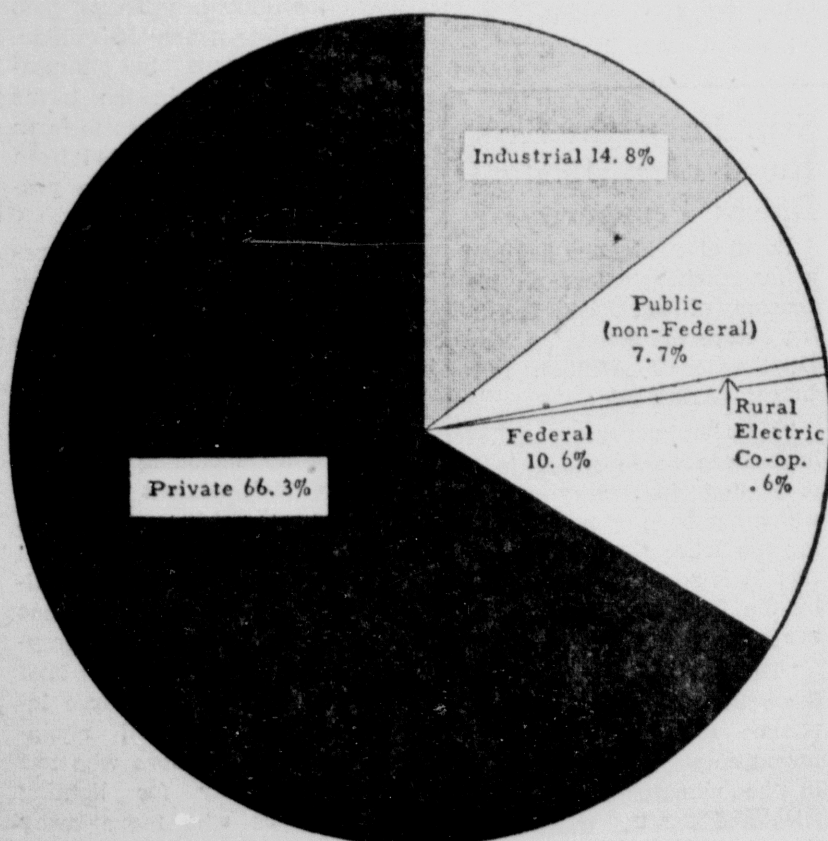
Atomic Program Of Much Value To Rural Electrics

Atomic energy will play an important role in the future of rural electrics, Senator Albert Gore, of Tennessee, said on the Senate floor on May 11.

"In some areas, where there is no hydro power potential, the REA co-ops face a rather bleak outlook, unless Congress takes forthright action with respect to atomic energy.

"In some areas the cost of power is very high. In such areas we should provide the opportunity for public power agencies to participate in atomic energy development. Atomic power plants should be developed in sizes which cooperatives can use to generate the new blocks of power they need.

"The Atomic Energy Commission should be developing large economical 'yardstick' atomic power plants from which power-shortage areas could buy new power at reasonable rates under the preference provisions of the Atomic Energy Act passed last year," he said.



RURAL ELECTRICS have less than one per cent of the power generation capacity in the United States, as shown by the chart above. Private sources still generate more than 81 per cent of the electric power in the United States.

Cost of Rural Electricity Reduced During 20 Years

As Cost Goes Down; Power Use Goes Up

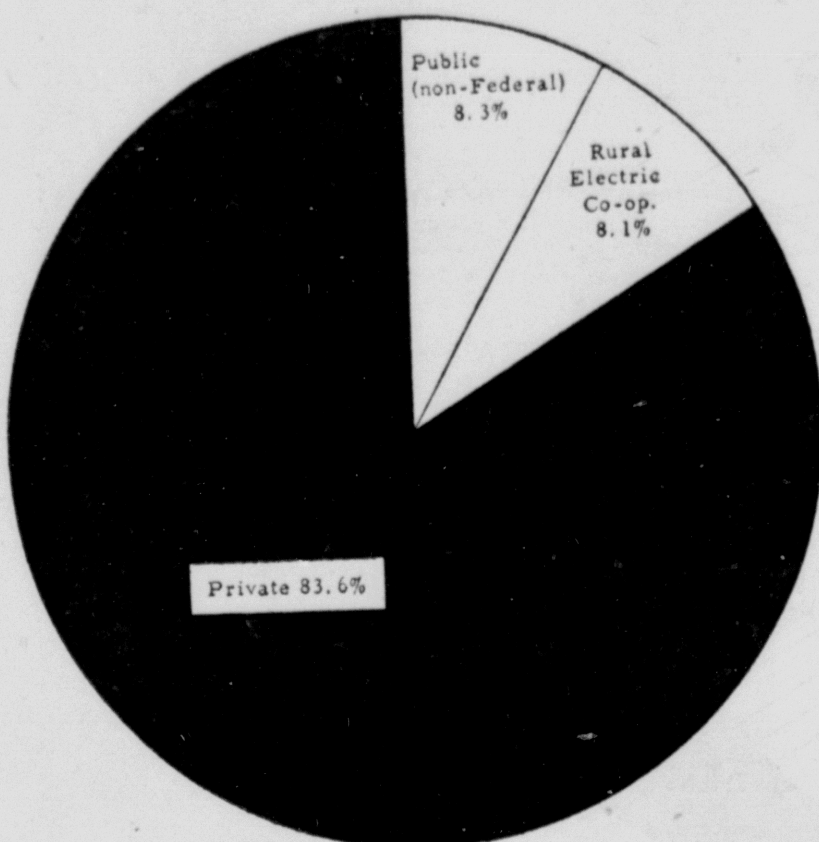
Rural electricians throughout the nation have been consistently purchasing more electricity every year since 1940, but the cost per kwh has been gradually less each year, a study of the systems indicates.

Back in 1940 when the rural electric purchased more than 90 per cent of the electricity needed, the cost was 1.09 cents per kwh. This is the wholesale cost of power. The bill that year for this purchased electricity was nearly four and one-half million dollars.

Each year since then, the rural electricians have purchased more electricity from commercial power companies and the federal government and yet the cost has continually decreased.

In 1945, the rural electricians purchased over \$18 million dollars worth of electricity, but the cost was 0.82 cents per kwh. The bill that year for wholesale power was \$18,518,441.

Last year the bill to the rural electricians for the energy purchased was \$108,979,050, but the cost per kwh was only 0.76 cents per kwh. The total amount of kwh purchased last year was 14,309,755,359.



RURAL ELECTRICIANS serve nearly 10 per cent of the consumers of electricity in the United States and over 55 per cent of its farms. The commercial utility will always serve the largest number, more than 80 per cent. The chart above shows the number of the ultimate consumers in the United States and from where they get electricity.

All Rural Electricians Operate Under State Corporation Laws

Rural electric systems throughout the United States and Alaska are paying taxes—every cent that any other utility pays on the federal tax level, except the income tax, and in many states, the same taxes as paid by other utilities, again except the corporation income tax.

Last year, rural electricians paid \$10,112,176 in taxes to federal, state and local governments.

All rural electricians are organized under the cooperative laws of individual states, and this law prohibits a rural electric from making a profit, therefore it could not pay a tax under the various profits tax laws—it has no profits.

But its organizational charter calls for management and operations so that at the end of each year, it will take in revenues at least as much as it is necessary to spend out for operations. Since it is impossible to operate so that there would be absolutely no difference between expenses and income, in most all cases, there is an amount collected from sale of electricity in excess of the actual amounts needed for operation of the individual rural electricians.

This amount, whether it be small or large, is returned to the members in the form of capital credits, on the same basis on which the amounts were paid by individual members. And these capital credits, under state laws, when they reach a certain percentage of the loan indebtedness of the individual rural electric, are then paid back to the member. These amounts or "refunds" as some would like to call them, are then counted as part of the farmer-member's income and, as such, are taxed both from the state income tax angle and also from the federal income tax angle.

Taxes Paid By Electricians Throughout U.S. Reported

Rural electricians in the United States and Alaska with distribution lines, not including the generation and transmission rural electricians, made the following tax payments during the past year: Alabama, \$240,930; Arizona,

\$83,147; Arkansas, \$445,908; California, \$36,613; Colorado, \$407,598.

Delaware, \$3,830; Florida, \$101,415; Georgia, \$67,224; Idaho, \$93,016; Illinois, \$573,091; Indiana, \$492,921; Iowa, \$141,910; Kansas, \$630,575; Kentucky, \$273,398.

Louisiana, \$46,660; Maine, \$4,438; Maryland, \$63,542; Michigan, \$132,541; Minnesota, \$450,548; Mississippi, \$66,501; Missouri, \$370,838; Montana, \$133,774; Nebraska, \$59,388; Nevada, \$149.

New Hampshire, \$100,017; New Jersey, \$21,774; New Mexico, \$130,452; New York, \$23,796; North Carolina, \$59,263; North Dakota, \$174,370; Ohio, \$785,299; Oklahoma, \$233,541; Oregon, \$116,001; Pennsylvania, \$33,666.

South Carolina, \$40,964; South Dakota, \$190,531; Tennessee, \$443,709; Texas, \$381,937; Utah, \$11,716; Vermont, \$22,334; Virginia, \$440,960; Washington, \$223,798; West Virginia, \$2,660; Wisconsin, \$304,116; Wyoming, \$16,530; and Alaska, \$31,698.

Sen. Fulbright Says Rural Electrification Raises Prosperity

Rural electrification has had a far-reaching effect on the economy of the Nation. Speaking before the Senate on May 11, Senator J. William Fulbright (Ark.) said:

"I understand that studies have been made which indicate that for every dollar which has been spent in building the REA distribution system \$4 is spent for equipment by the farmers whose homes are electrified.

"This has meant business for retail and wholesale appliance distributors. It has meant employment and profits in the manufacturing industries and for the transportation companies. It has meant that the producers of the raw materials have likewise shared in the expanding economic prosperity which has resulted from the REA program."

Assets of Rural Electricians In Each State Is Reported

Co-Op Generation, Transmission Loans Valuable to Program

"The cost of power in the early days of the REA program was, and still is today, one of the most important factors in the successful operation of a rural electrification cooperative or power district," Senator Monroney, Okla., said.

"The cost of power is the largest single item of operation cost, except for interest and amortization payments. If the power is purchased, and most of it is, and the only available wholesale rate is a few mills too high, then REA has no alternative but to lend money for generation and transmission facilities.

"In order to have some small degree of protection against exorbitant rate increases for wholesale power, or against poor service on the line, the generation and transmission co-op loans have been worth tremendous amounts to REA.

"Every state has seen outstanding results because an independent power supply can be obtained through REA loans, if the utility rates are unreasonable or the service unsatisfactory."

Rural Systems Add to Wealth Of the Nation

Repayment of the principal and interest of electrification loans is part of the picture. The side effects are important.

The \$3 billion electrification loan program is estimated to have produced between \$10 and \$12 billion sales in electrical appliances and services. Demand in the immediate future is expected to be almost as high.

Rural electric systems throughout the country employ around 28,000 people and most of the payroll money is spent locally. In 1954, REA borrowers paid over \$140 million for the power they distributed. They paid taxes totalling nearly 11 million.

More important but impossible to estimate in the terms of dollars is the increase to farm income which has resulted from the use of electricity as a production tool.

Some have expressed apprehension as to what would happen to a rural electric system in drought areas. Ozark Electric Cooperative with headquarters at Mount Vernon, Missouri, found out. After two years of extreme dry weather including one ten-month stretch without rain, use of power by 7,098 farm consumers increased by 1 million kwh. It appears that in an area of diversified farming drought has little effect on electric consumption when farmers own their land and have a reasonably large investment in electrical equipment. Tenant farmers who use electricity mainly for lighting are the ones who move away or stop service when the going gets rough.

In summary, the REA approach of long-term, low-interest loans, even with the hazard of 100 per cent capitalization, seems well on the road to success.

Distribution by states of 1,022 rural electric systems and the rural electric assets in each state are shown in the following figures:

Alabama, (25), \$55,265,999; Arizona, (10), \$15,704,906; Arkansas, (20), \$57,449,908; California, \$3,259,341; Colorado, (2), \$460,420; Delaware, (1), \$1,350.

Florida, (17), \$32,354,638; Georgia, (43), \$82,232,944; Idaho, \$12,489,218; Illinois, (28), \$17,939; Indiana, (44), \$52,113; Iowa, (55), \$78,708,527.

Kansas, (36), \$74,949,665; Kentucky, (26), \$82,309,451; Louisiana, (16), \$33,555,997; Maine, \$1,565,175; Maryland, (2), \$567,419; Michigan, (15), \$28,922.

Minnesota, (54), \$105,930; Mississippi, (26), \$70,706,774; Missouri, (45), \$138,922,701; Montana, (25), \$36,770,069; Nebraska, \$76,849,598.

Nevada, (2), \$515,007; New Hampshire, (2), \$6,942,201; New Jersey, (2), \$996,653; New Mexico, (17), \$42,439,323; New York, (6), \$2,593,923; North Carolina, (36), \$69,244,170.

North Dakota, (25), \$4,838; Ohio, (30), \$48,322,066; Oklahoma, (28), \$83,857,534; Oregon, \$27,660,569; Pennsylvania, \$25,230,319; South Carolina, \$42,191,294.

South Dakota, (34), \$63,048; Tennessee, (33), \$87,978; Texas, (78), \$171,199,577; Utah, (6), \$4,055,437; Vermont, \$2,733,845; Virginia, (17), \$4,716.

Washington, (24), \$30,245; West Virginia, (2), \$1,098; Wisconsin, (31), \$40,294; Wyoming, (16), \$20,030,030; Alaska, (6), \$13,433,133.

'Wirehand' Put to Work In Farm Home

Is it a fact that farmers use more and more power and that they are a prime market for electrical appliances and equipment?

Here are a couple of examples which indicate the trend. Pocahontas County Rural Electric Cooperative with headquarters at Pocahontas, Iowa, served around 3,000 rural consumers. Last year, members bought 120 home freezers, 112 automatic dryers, 62 press water systems, 78 water heaters, 59 electric ranges, 95 washing machines and 16 milking machines.

The Craighead Electric Cooperative at Jonesboro, Arkansas, works with area dealers to promote electric ranges. For the years in a row, dealers have stalled 1,000 or more electric ranges a year. And despite this, only a third of the members are cooking with electricity.

The Lincoln Electric Cooperative at Davenport, Washington, is an example of what happens when electricity takes hold. The 1,200 members use an average of 1,156 kwh a month each month all year around. On the system all members have refrigerators, 93 per cent have electric ranges, 98 per cent have washing machines and 72 per cent have home freezers.

While everyone agrees that electricity has made life around the house, the question is: when will electricians get knee deep in the barometer.



Rural America Puts Electricity To Work on the Farm

Good Lights Put Power To Best Use

One of the big problems in the rural home is to develop good lighting with available electricity.

There are several recommendations for good lighting in the home. Where these ideas have been carried out, good lighting has resulted.

All ceilings should be painted white so that upward light from ceiling fixtures and portable lamps will bounce down from the ceiling and give diffused light.

Be sure to choose ceiling fixtures with shielding glass that is dense enough so there are no glaring "hot" spots from the fixtures.

Select lamps with diffusing reflectors under the shades, or use "harps" and use White Incandescent bulbs.

Select tall lamps so that it is not necessary to "scoot" down your chair to read or to move your work toward the lamp to get light.

Look for shades with white linings to get maximum light reflection. Shades should be opaque enough so that one cannot see light from the bulbs.

Have enough lamps and space around the room to "wash" dark corners, since deep contrasts of light and dark tire eyes.

Use three-way bulbs so that it is possible to adjust the light to its purpose. This means 50 watts for conversation, 100 for reading, and 150 and up for close work.

Install three-way and four-way switches so that the room can be lit up ahead of entrance, or from whichever door one enters.

Lamps should be chosen with shades so that they will go with the style of furniture in the room, and so they will suit the color of the furnishings with which they are used.



THE KITCHEN OF TODAY—not of the future, but of today. Arrayed along a 12-foot wall are four separate refrigerated appliances. There is the beverage cooler at the left. Ice cubes, crushed ice and cool water are available from the next unit. The combination food freezer-refrigerator has both doors open with the "lady of the house" standing in front. The moist-cold refrigerator that rolls out like a large drawer is at the right. This is NOT the kitchen of tomorrow—it is here today and can be found in the homes of many members of rural electrics. For they know how to live electrically—and they know living electrically is living economically.

Assignment for Agriculture— Use of Barnyard Kilowatts

Getting rural electricity to get up out of that easy chair in the living room and go to work on the farm is one of the biggest assignments in American agriculture today.

In December, 1954, consumers on REA-financed lines had an average use of 236 kwh for the month. About 80 per cent of it was used around the house; only 20 per cent on the farm.

The rural market for electrical appliances and electrical production tools has hardly been

touched. The pressure water system is the heart of home use of power, yet recent estimates indicate that only a little more than 40 per cent of rural homes have running water.

Modern living demands the bathtub, the indoor toilet, hot water heater, automatic washing machine, automatic dryer, the dishwasher and the garbage disposal, but all these depend on the pressure water system.

Everyone stands to benefit from more effective use of rural

Rural Electrics Affect Urban Areas Says Rep. Yates

The integration of rural and urban activities was noted by Congressman Sidney R. Yates, (Ill.) in remarks before the House of Representatives on the 20th anniversary of rural electrification.

"We now know that there are over 400 uses of electricity on the farm," Rep. Yates said. "This means the purchase and maintenance of all kinds and types of appliances and electric facilities that are manufactured in our large cities."

"Therefore, in paying tribute to the great REA organization and in helping to keep it financially and technically sound and free from all politics as the Congress intended, we are actually taking steps to provide for a continuing prosperity which is as essential to the rural areas as it is to our urban cities."

power. The farmer produces more at less cost; main street dealers and service men get more business and the rural electric system gains in financial security. The dollars the farmer spends on a water system go all the way back through the economic pipeline to the dealer, wholesaler, manufacturer and labor.

Today there's an organized approach to more and better use of farm power. All who have a stake are represented in the Inter-Industry Farm Electric Utilization Council. Manufacturers of electrical equipment, wholesalers, retailers, contractors, electric companies, rural electric cooperatives, agricultural schools, REA and other agencies, have joined in the effort. The individual farmer's needs and his type of farming are given first consideration.

Power at Work

Part of the corn-hog production secret is found in infrared heat lamps. Like many other farmers, Harrison Ikard, of Penile, Tennessee, breeds his sows to farrow in January. Despite the unseasonable cold for that section this winter, Mr. Ikard was not too much worried when his 12 sows blessed him with 120 pigs. One month later he still had 115 pigs all in good health. His 10 heat lamps burned 24-hours a day during the chill weather.

Rural Power Is Requiring Heavier Lines

Borrowers from REA as a group are now approaching the peak of debt payments.

By 1958, borrowers will be expected to pay \$116 million in that year. In 1954, the amount due was \$72 million. Many borrowers have anticipated the period of stress and have made advance payments as a cushion of credit. Other have made certain that reserve accounts have been set up and invested in government bonds.

Running parallel with the debt payment trend is another which calls for rather heavy new investment.

In a good many areas, borrowers who have been in business for 12 to 15 years suddenly are finding that the rural demand for power is greater than the capacity of their lines. The older lines are replaced at 1955 construction costs which are appreciably higher than those of 1938. The additional investment requires effective power use campaigns to increase revenues through the sale of electricity.

Recently REA asked its borrowers to survey their loan needs for the next five years. The present electrification loan program runs around \$160 million a year.

Borrowers estimate that they will need \$156 million in loan funds in 1956; \$151 million in 1957; \$123 million in 1958; \$113 million in 1959, and \$92 million in 1960.

Line Improvement Is Big Job Now

Borrowers estimate that one fourth of the loan funds they will need each year will be used to improve and heavy up their distribution systems to meet increased demand for power.

At the same time that borrowers are making their loan payments they are also increasing their equity through the use of their own general funds. Borrowers now have around \$122 million of their own funds invested in electric facilities.

While debt payments are on the increase, the same is true in total borrower operating margins. After deducting operating costs, depreciation and interest, borrowers had an annual net margin of \$24,548,369 in 1952. In 1954 this figure rose to \$42,700,000. With stepped up power use campaigns, borrower margins should continue to show steady progress.

At the same time that the sales of power are increasing, borrowers are being encouraged to put more and more emphasis on good management. The use of management analyses, long range planning, system surveys, cash budgeting and stronger internal controls have all aided borrowers in developing more mature management.



POWER USE on the farm means more profit to the farmer, especially this one who makes use of electricity to hatch his chicks. This is one of more than 400 uses

for electricity on today's farm. 250 of these 400 uses are labor savers, and the other 150 play almost as important parts in the rural life in these United States.



77 Rural Electrics Serve Texas Farmers, Ranchers

All Systems Work With State Office

Services of Texas Electric Cooperatives as a membership association are about as varied as the individual requests from the 77 member rural electric systems, but are generally tied in with informational activities and as a vehicle for group action on problems.

Regular informational activities are principally CURRENT magazine, a bi-monthly publication which goes to 2,500 directors, managers, and employees of Texas rural electric co-ops, and a weekly management newsletter which goes to all managers in the state.

Both of these services are financed from the membership dues paid by the member systems. CURRENT includes personal items, local news of co-ops and their employees, and feature articles on employee work. It is cited by Bill Lewis.

The weekly newsletter to managers is a "news-in-a-nutshell" type of publication, four pages in length, which includes "all the news that fits to print"—about co-ops and power in general, that is. Editor is Elmo J. Osborne, TEC general manager.

Sponsorship of various technical schools and conferences is also part of the membership activities of the association. This includes power-use schools held in the past for the training of co-op employees, and also, the current series of "Rural Development Conferences" at which co-ops, electric appliance manufacturers, and rural agencies and organizations are represented, work out joint recommendations for developing rural areas.

As an information center, TEC studies closely all legislation proposed in regular and special sessions of the Legislature, informs all member systems of legislation affecting them, and serves as action group for support or opposition to legislation when the views of members are expressed.

Related to this type of service is the watch kept by state board and employees on other matters affecting the general welfare of the co-ops. An example of this function is the opposition expressed collectively by the cooperatives through TEC to certain policies of REA. Notable in this field was the case of the "prevailing wage" policy which REA attempted to impose on the co-ops three years ago. Through their state association, the co-ops successfully resisted this as an invasion of their right to run their own business.

Looking after the general welfare of the cooperatives also means public expression of the views of the co-ops in an effective way, such as the defense of the right of the co-ops to run and operate their own generation and transmission facilities. Realizing that the very roots of the cooperative rural electrification program were threatened if this right was removed, extensive re-

Quality Transformer Repairs

Necessary For Good Electric Service

Newest service of the Texas Electric Cooperatives, Inc., is transformer repair in the modern \$100,000 shop located on the Burnet Road in Austin, and just opened for business in 1953. With the thousands of transformers in service on the rural systems over the state, quality repair service was recognized as an essential to good electric service, hence the establishment of the co-ops own repair service.

After almost a year in the building and equipping stage, the shop was opened for business in May, 1953, and has already proved its value in providing an efficient and dependable repair service.

Under the direction of Manager H. K. (Gus) Garrison the shop has grown to employ twenty-one people and has a current repair capacity of more than 200 transformers per month. It is furnished with the latest in repairing and testing equipment, can handle the largest jobs the co-ops have, larger even than the 333 KV transformer which is the largest repaired up to now.

A regular pick-up and delivery service is provided throughout the state with a large tractor-trailer combination which hauls up to 100 transformers at a time. A special feature of the service is the painting of the name of each co-op on its transformers. Most of the equipment for repairing, uprating and rewinding

search on the value of this right in dollars and cents was done by TEC and the results in brochure form were presented to REA officials and Congressmen two years ago.

The adaptability of TEC to meet the needs of the member systems is demonstrated by the mobile generating units with which it began operation in 1942. These were four mobile units designed to furnish small amounts of emergency or standby power on a rental basis for the member systems. Today, the capacity of these units has been largely outgrown by the greatly increased power loads in the state. Of the original four, only one is now retained, for use in emergencies. This need has declined while other grew.

The services are varied, with each state director each month bringing the problem and needs of the cooperatives in his area to the attention of the board for whatever action may be needed. As a cooperative of cooperatives it is one place where sectionalism is forgotten and the problems of the few are of interest and urgency to all.

Texas Co-Ops Are Active

(Continued from Page 1)

composed of all the rural electrics of the state simply has not had contact directly with individual co-op members even though all its work is for the ultimate benefit of this group of people.

Guided by a seven-man board of directors elected yearly from over the state, the first office of TEC was opened just 11 years ago, 1944, in the Scarbough Building in Austin. The first business undertaken was publishing TEXAS CO-OP POWER and serving as an information center for the co-ops on legislative matters.

These are still part of the everyday service rendered the Co-ops by TEC, but as the systems

of transformers was built on the spot by the men who are now operating it.

The shop, under the direct supervision of James Webb, also furnishes repair service for oil circuit breakers and regulators as well, and has done some oil testing to substation transformers.



OSIE CAUBLE, PRESIDENT of the Board of Directors of the Texas Electric Cooperatives, Inc., is one of Texas' most outstanding Co-Op leaders. He is active in the work of the Cooperatives in his state as well as in the nation. The present Board is composed of Mr. Cauble, President; Fain McDougal, Vice-President; Ben Templeton, Secretary-Treasurer; with Directors J. L. Johns, M. D. Kaderli, Earl Waide and Donald S. Foster.

Pole Plant Helps Spread Co-Op Power

Creosoted poles from Texas Electric Cooperatives' Lufkin plant have paved the way, so to speak, for a lot of the rural electrification in Texas since the plant was purchased for the co-ops by TEC in 1944. Starting with 1945, the bulk of line construction on rural electric systems came in the years through 1950, with the co-ops' plant in the thick of it supplying most of the poles.

Financed by loans from REA amounting to \$342,000, this unique cooperative effort reached its climax in 1951 when the then Administrator of REA Claude Wickard was handed a check by TEC president, Allen Burditt, for the last payment, retiring the debt on the plant.

Besides cutting short a wartime bottleneck of pole supply which was holding up construc-

grew in maturity and the needs for services grew, other phases of activity have been added. With a general office at 515 West Fifth in Austin, housing the publication and accounting departments, other facilities are now located at 8140 Burnet Road in Austin

tion of lines to many rural areas, the co-ops have since accumulated an asset of almost half a million dollars clear of debt and still supplying them with vital material for construction.

Now a successful business, this was a bold move for the board of directors of TEC in 1944, an untried venture which even some officials of the REA were doubtful about.

The original plant would hardly be recognizable to the men who first inspected and purchased it for the cooperatives in 1944. A near complete re-furnishing job has been done over the past eleven years with little of the original equipment still in use. Improved methods and techniques have taken over to give the co-ops an up-to-date modern plant.

Entire Operation Is Carefully Watched

From the forests of East Texas the electric lines of the co-ops, TEC Treating Division sees the poles through the entire operation. Poles are cut from trees in the forests and designated as to class and length, where the production superintendent of the plant contracts for them to be shipped in to the Lufkin plant. It is an exacting and highly competitive business, handled for TEC by Jess Harper.

Into the plant by rail and by truck, the poles are again checked for length and class (circumference) before they are run through a peeling machine which smooths out the rough spots, takes off remaining fragments of bark. Here they are also cut to exact length and bored for the type of hardware which will be put on them in the co-op lines.

By tram they go into huge cylinders where they are locked up and pressure forces complete penetration of creosote preservative into them, in most cases a 10 lb. per cubic foot retention. This treatment is checked by independent inspectors, who keep a resident inspector on the grounds to see that all specification requirements are properly met.

From the cylinder and creosote treatment, the poles go into inventory stacks, or directly onto rail cars and trucks for shipment to the various points in Texas where rural electric line construction is underway, bringing electricity to still another rural family.

From the time the poles enter the plant, they are handled by the crews under the direction of plant manager, A. R. Geyer and sales and service are handled by Jess Harper, Superintendent of Procurement and Sales.

Since 1948 the plant has maintained its own fleet of seven trucks to make deliveries to the co-ops. Either truck or rail shipment is used according to the requests of the co-ops.

Faith, Work Basis For Co-Op Service

The character and spirit of the men who guide its policies and operations, and so it is the state organization of rural electric systems. The fifty-three men who have served as members of the TEC board of directors have been largely responsible for shaping it as a progressive service organization operating in a democratic manner, carry out the aims outlined by the members.

Far-sighted leadership has been characteristic of the group since the first incorporators met in 1941 to form an organization with a potential based mostly on faith in the rural electric program.

A limit of two successive years tenure for members of the board was written into the by-laws to insure that the association would always be open to new ideas and a fresh approach to problems.

While this requirement meant a constant turnover of leadership, it has also insured complete democracy in the running of the affairs of the co-op and has enabled a cross-section of the state's leaders to serve.

Of the seven original incorporators, only three are still active in the rural electrification program. They are Truett Bailey, Wm. Newton, and J. E. Wilder. Other members of the first Board are J. H. Flood, Johnny Cox, S. Scales, and Wm. Church.

Of the 53 who have served, are still actively working in the rural electrification program, have died, and the remaining have gone into other work.

In addition to the original seven, the following have served one or more years on the Board: Thomas E. Hinkle, Thomas League, Charles Coleman, R. L. McNeely, M. Cowan, Glynn Scott, O. K. Wall, Joseph A. Barton, A. Thomas, Raymond Hampel, Hassman, V. B. Shaw, O. Bryan, H. H. Sears, and

T. E. Craddock, R. H. Haman, Raymond Perdue, R. Shepperd, Jehu Murrah, Worthy, G. A. Tunnell, A. Duncan, Orval Couch, J. A. Leach, E. D. H. Farrow, S. D. Lanham, C. M. Lester, J. S. D. ton, M. G. Hytlin, D. B. Lancaster and

Garland Penington, Allen Burditt, Weldon Groves, Geo. Ross, Jr., W. E. Lanham, Carl Land, R. A. Yarbrough, Ches. Kirk, C. M. Wagner, P. Spence, T. R. Qualls, John Ammons, Leo Forrest, W. Cardwell.



SOMETHING OF WHICH TO BE PROUD—The Co-ops own transformer repair shop in Austin, Texas is one of the most modern, up-to-date repair shops in

the country. Operating at full capacity now, the shop handles some 200 transformers each month. It is one of the big assets of the Texas Co-ops.

